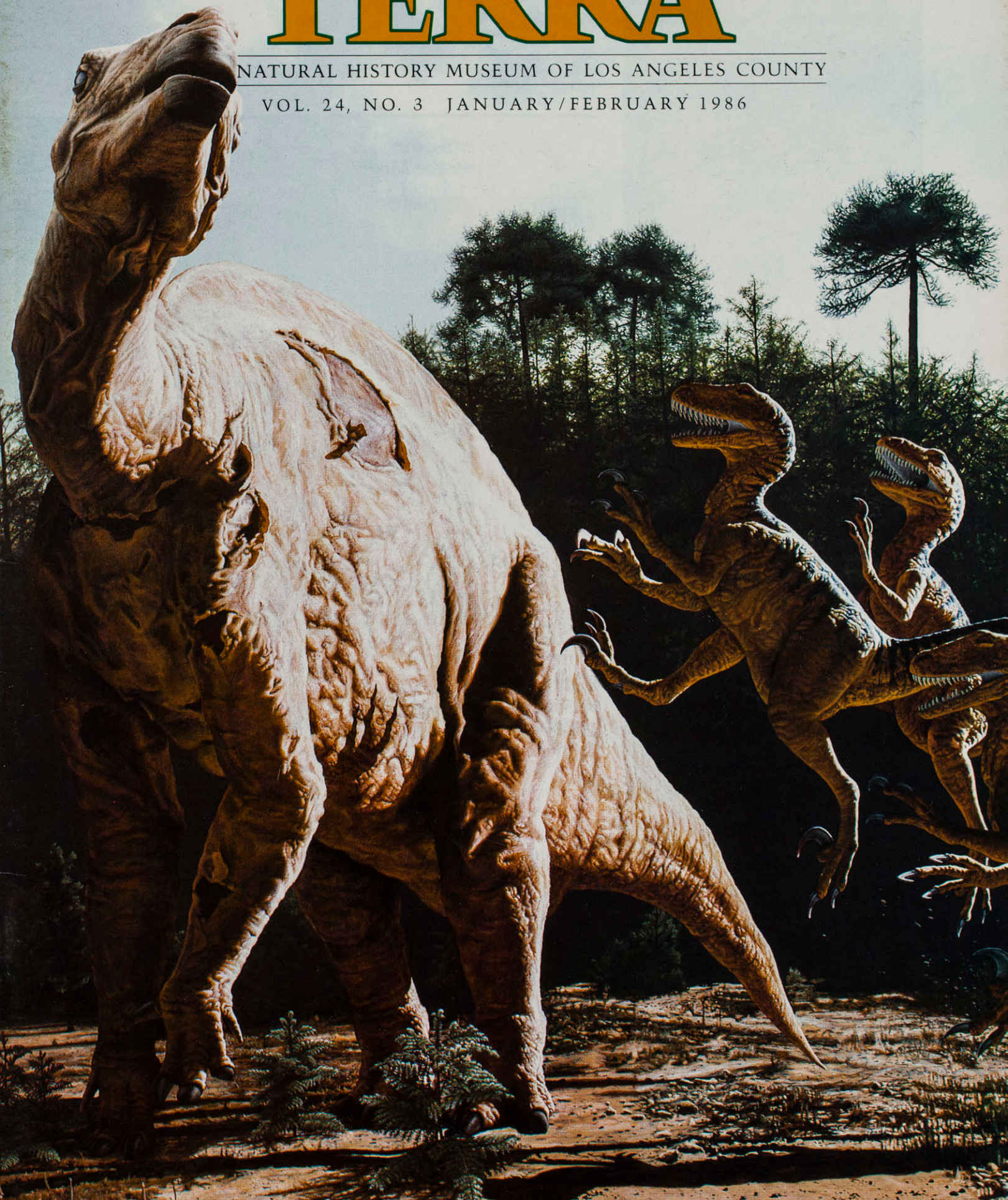


TERRA

NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY

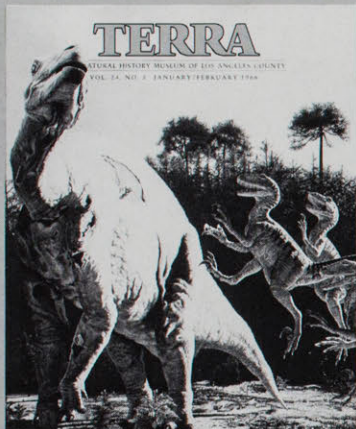
VOL. 24, NO. 3 JANUARY/FEBRUARY 1986



TERRA

THE MEMBERS' MAGAZINE
OF THE NATURAL HISTORY MUSEUM
OF LOS ANGELES COUNTY
AND THE PAGE MUSEUM
OF LA BREA DISCOVERIES

VOL. 24, NO. 3 JANUARY/FEBRUARY 1986



COVER

Deinonychus and *Iguanodon* by John Gurche. A pack of predatory *Deinonychus* (aptly named "terrible claw") may have cooperated in bringing down a large plant-eating dinosaur.

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MUSEUM ON THE MOVE

MUSEUM LAUNCHES \$30 MILLION CAPITAL CAMPAIGN.

In conjunction with its 1988 Diamond Jubilee—marking seventy-five years of service to the people of Los Angeles and the entire southern California region—the Natural History Museum of Los Angeles County has embarked upon a major effort to meet the changing cultural and educational needs of the community. The five-year, \$30 million Capital Campaign is the product of almost two years of joint planning by Museum Governors and Natural History Museum Foundation Trustees, Museum Director Craig C. Black, and the museum's administrative and curatorial staffs. "Its dual goal," said Richard Call, M.D., Museum Governor and Seventy-Fifth Anniversary Campaign Chairman, "is to expand and improve the museum's ability to serve the public and to establish firmly its place as a museum of natural science and history having both national and international stature. The museum strives to meet the diverse and growing needs of the entire spectrum of people who come seeking knowledge, enjoyment, and a greater understanding of the other peoples, places, and times. No other institution has the capability to meet these important and fundamental needs."

The main thrust of the campaign will be the strengthening and expansion of permanent exhibits. Eight out of every ten dollars raised will be used for these purposes as well as to increase public access. Space will be provided for the imaginative display of two collections currently not represented in exhibits—dinosaurs and Native American cultures. In addition, bird and other wildlife exhibits now in place will undergo major changes so that they will continue to be among the finest in the world and thus provide maximum educational value and cultural stimulation for visitors. The establishment of small, regional halls throughout Los Angeles County and the provision of increased parking for visitors are also key elements of the Seventy-Fifth Anniver-

sary Campaign.

Speaking on behalf of the Natural History Museum Foundation Board of Trustees, its President, Robert S. Attiyeh, stated that the "energy, vision, involvement, and commitment of the entire community have made the museum a truly outstanding asset in which we can all take pride. Continued community support and investment in this pivotal resource will ensure its heightened success and, in the process, provide unique learning experiences for the enjoyment and benefit of all."

Providing leadership and direction

for the campaign are representatives from the museum's Board of Governors and Trustees, the Natural History Museum Foundation Board of Trustees, the museum's administration, and the general membership of the museum.

Dr. Black and Foundation Executive Vice President Dr. Kenneth J. Daponte have indicated that in order to meet its construction and endowment goals, the Natural History Museum Foundation must receive personal and financial commitments from a growing number of friends who believe in the importance of this major

Individual components of the Seventy-Fifth Anniversary Campaign—the largest fund-raising program ever undertaken by the museum—are outlined in the chart below. To date, more than \$4 million in advance gifts and pledges has been received toward the \$30 million goal.

THE SEVENTY-FIFTH ANNIVERSARY CAMPAIGN

Goal \$30 Million

EXHIBITIONS AND EDUCATION	\$17,000,000
Hall of Evolving Life	10,000,000
Hall of Native American Culture	3,000,000
The Great Bird Hall	3,000,000
Regional Exhibition Halls	1,000,000
COLLECTIONS	\$4,000,000
Acquisitions Endowment	2,000,000
Curatorial Endowment	1,000,000
Page Museum Endowment	1,000,000
RESEARCH	\$2,000,000
Curatorial Laboratories and Offices	2,000,000
EXPANDED VISITOR PARKING	\$7,000,000
TOTAL	\$30,000,000

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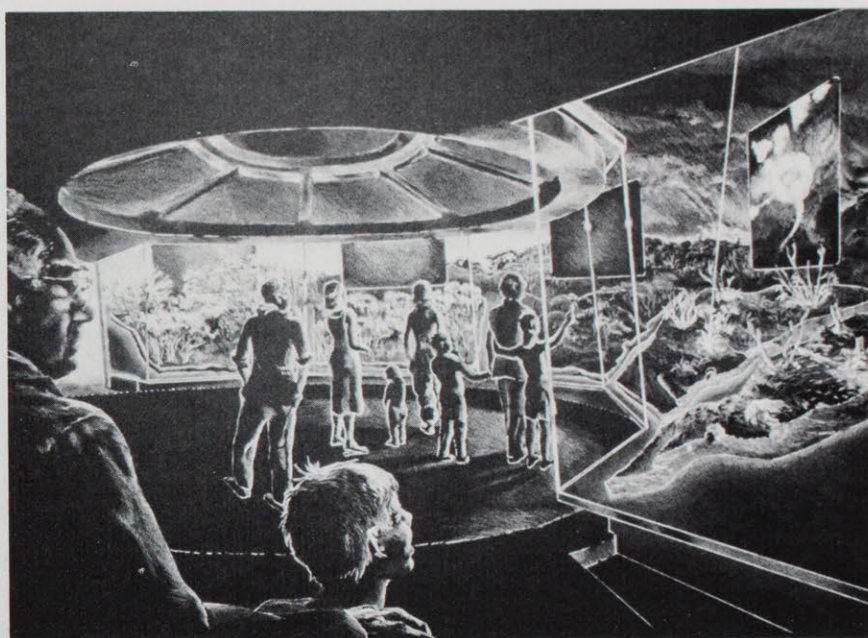
educational and cultural community asset. Voluntary support from museum members, individuals and families, corporations, foundations, and the community at large must reach unprecedented levels. These commitments can be made in the form of outright gifts, pledges, charitable trusts, and other forms of estate-planned gifts, including bequests. "Museum members particularly are invited to share in this very special effort to enhance the quality of life for the people of greater Los Angeles and participate in the Seventy-Fifth Anniversary Campaign," said Charles O. Parker II, Vice Chairman of the campaign.

Various named gift opportunities within the total project—including portions of exhibition halls and galleries and endowed funds—can be underwritten and given a special designation. This is not only an ideal way to honor family, friends, or members of the corporate or foundation communities but also to ensure that an honor becomes a lasting part of the museum.

The completion of the Seventy-Fifth Anniversary Campaign will mark a community first and will ensure the continued position of the museum—its exhibits, programs, collections, and research—among a handful of nationally and internationally recognized natural science and history institutions. Your commitment to this project will help to make it a reality.

Detailed information about named gift opportunities, as well as the various ways of making a pledge or contribution and their respective tax implications, is available through members of the Seventy-Fifth Anniversary Campaign Committee or from the Museum Foundation staff.

For further information, please write or telephone Dr. Kenneth J. Daponte, Executive Vice President, Natural History Museum Foundation, 900 Exposition Boulevard, Los Angeles, CA 90007; 213/744-3307.



UNION BANK DONATION HELPS UNDERWRITE THE GREAT BIRD HALL AND RESEARCH CENTER.

The Union Bank Foundation announced that it will donate \$100,000 over a five-year period to the Natural History Museum Foundation for the development of The Great Bird Hall. The funds will be used toward the construction of an 11,000 square foot, two-level bird hall, with exhibits featuring a wetland marsh habitat, a chaparral California condor habitat, and a tropical rain forest, which will give visitors a better understanding of the ecology of the three habitat groups. The hall will also present numerous displays on ornithology, evolution, flight, feathers, camouflage, and migration. A Birds of the World exhibit at the hall's entrance will display and identify birds from California and around the world, a gallery will exhibit ornithological art, and an area will be set aside where visitors may handle nests, eggs, skeletons, and feathers. Dr. Ralph Schreiber, curator and head of the museum's Ornithology Section, expects that The Great Bird Hall will be open to the public in June 1988.

The new chaparral hall as envisioned by Interactive Production Associates.

CHAPARRAL: A STORY OF LIFE FROM FIRE. A contract for the design and audiovisual presentation of the new Botany exhibit, Chaparral: A Story of Life from Fire, has been awarded to Interactive Production Associates of Los Angeles. A grant of \$250,000 from the Santa Monica Mountain Conservancy will enable the museum to begin work on the hall. The new exhibit will feature chaparral, one of the most characteristic plant communities in California, from a recent burn to a fifteen-year-old mature stand. Fire is a part of a natural cycle of what appears to most people as uniform, uninteresting scrub covering the foothills of our nearby mountains. The result is an intricate balance between drought, fire, and living organisms. The natural interaction of plants and animals with this environment and with the city around it will be presented in the exhibit, which is slated to open in fall 1986.

DINOSAURS PAST AND PRESENT

Prehistoric Visions

by SYLVIA CZERKAS



Above: Dryptosaurus by Charles R. Knight (1897). This painting is still one of the most advanced statements about dinosaurs, as it reflects remarkably modern thoughts about the mobility of dinosaurs and their interspecies behavior. Knight was instructed by both

pioneer paleontologist Edward Drinker Cope and Henry Fairfield Osborn of the American Museum of Natural History on the creation of this piece. Used with permission of the American Museum of Natural History.



The rich history of dinosaur reconstruction and illustration began in England with the collaboration of the pioneer paleontologist Sir Richard Owen, who coined the word *dinosaur*, and the sculptor and painter Benjamin Waterhouse Hawkins. For six years during the 1850s Hawkins, under Professor Owen's direction, undertook the task of creating the first life-size restorations of dinosaurs and other prehistoric animals for the grounds of the

Crystal Palace at Sydenham, England. His powerful interpretations of *Iguanodon* and *Megalosaurus* are impressive to this day. Professor Owen and Waterhouse Hawkins worked with the fragmentary fossil evidence and clues available in the infancy of paleontology. While the physical appearance of the dinosaurs they constructed has since been reinterpreted, their early efforts helped pave the way for dinosaur illustrators to come.

(Continued on page 10)



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Page 6, bottom: *Maiasaura* by Stephen Czerkas (1984). Sculptor Stephen Czerkas produced this life-size model of a *Maiasaura* nestling under the direction of paleontologist Jack Horner of the Museum of the

Rockies (Bozeman, Montana). Fossil remains of fifteen partially grown *Maiasaura* found together in a nest indicate that the small *hadrosaurus* may have been protected and fed by their mother.

Above: Triceratops Herd and Tyrannosaurus by Mark Hallett (1984). It is possible that the large horned dinosaurs may have formed defensive circles around their vulnerable young while under attack

from predators, much as modern musk oxen protect their calves from wolves on the tundra. Mark Hallett is a local illustrator, teacher, and writer.



Archaeopteryx with
Sauropod by John
Gurche (1982).
Gurche, who painted
the Smithsonian's
Time Column, here

depicts an Archaeop-
teryx chasing a
dragonfly through a
forest. A sauropod
walks through the
trees but is so large

that only its
elephantine legs and
belly can be seen.
Paleontologists have
been debating for
years whether Ar-

chaeopteryx was a
small flesh-eating
dinosaur with feath-
ers or the first bird.
The general consen-
sus at a recent sym-

posium was that
"Archaeopteryx was a
bird and could fly
but was not neces-
sarily directly ances-
tral to modern birds."



Anchiceratops or-
natus, Hypacrosaurus
altispinus and Alberto-
saurus libratus by
Gregory Paul. Paul is
an East Coast illus-

trator of prehistoric
subjects and is cur-
rently working as a
consultant on a full-
scale flying Quetzal-
coatlus for the

Smithsonian. In this
dramatic water hole
confrontation, a
pack of hungry
Albertosaurus work
together on a sneak

attack at a vulner-
able moment for the
other animals.

Maiasaura Herd
Aerial View by Doug
Henderson (1983).
Henderson worked
closely with paleon-

tologist Jack Horner
to render a herd of
Maiasaura on the
move. Paleontolo-
gists have discovered

a large number of
bones in a layer of
volcanic ash in
Choteau, Montana,
which indicates that

a herd such as this
one met a cata-
strophic end in the
early Cretaceous.
Used with permis-

sion of the Museum
of the Rockies.





Cool Weather by William Stout (1981). The Camptosaurus shown here is seeking shelter from the storm and suffering the double discomfiture of the elements and being separated from its herd. Stout is a Pasadena-based artist whose extensive credits include work as a film production designer and illustrator of magazines, record covers, and movie posters. In 1981 Bantam published Stout's *The Dinosaurs, A Fantastic New View of a Lost Era*.

(Continued from page 7)

North American dinosaurian discoveries began on a large scale in 1877, which also marked the beginning of the fierce rivalry between paleontologists Edward Drinker Cope and Othniel Charles Marsh. Each was determined to outdo the other in quantity and quality of fossil discoveries, and each had groups of collectors working for them in the field. Fossils began flooding into eastern institutions by the excavated ton, providing paleontologists with ample material to analyze and creating an interest in knowing what the new creatures being discovered might have looked like.

The most famous collaboration between an artist and paleontologist was that of Charles R. Knight and Henry Fairfield Osborn. From their meeting in 1896 and for the next thirty-nine years until Osborn's death, this association produced beautiful and accurate restorations of prehistoric life. Osborn's position as director of the American Mu-

seum of Natural History in New York and his determination to create important displays of dinosaurs in the museum gave him both the means and the reason to find the funding needed for Charles Knight to produce his major works.

A steady stream of early discoveries provided material for display and illustration. Year by year large pieces of the dinosaurian puzzle were being put together by the scientific community. Charles Knight was the first artist to deal with many of these concepts, and his restorations provided the standards for dinosaur illustration for years to come. Many other fine artists were also hard at work illustrating the current concepts, including Neave Parker working in England with W. E. Swinton, and the Czechoslovakian artist Zdeněk Burian who worked with Professor Zdeněk Špinar and Dr. Joseph Augusta.

The recent growth of interest in dinosaurs has been stimulated by a surge of

activity in the scientific community. Astounding new fossil discoveries have surfaced. The interpretation of these discoveries, combined with a fresh look at old facts, has had a remarkable impact on our current understanding of dinosaurs.

To re-create the physical appearance of dinosaurs, paleontologists and artists work together in studying and analyzing the skeletal remains that are preserved in the fossil record. Rare impressions of skin and muscle that are left as rock tell us what the outer surface of the animal looked like. No impression of dinosaur skin retains color, but here scientists and illustrators have looked to the environment and probable habits of the creatures for guidelines. Because many living animals use color as camouflage or for sexual display, it is likely that dinosaurs also did so. Whenever possible, reconstructions are based on living animals.

Scientists have drawn striking com-

parisons between dinosaur behavior and that of modern animals. As vast herds of buffalo once filled the plains of the American West, so too massive herds of *Styracosaurus* and other horned dinosaurs once roamed what are now the Cretaceous fossil fields of Alberta. There, hundreds of animals perished in a flash flood or an attempted river crossing. In Choteau, Montana, a volcanic eruption smothered a large herd of hadrosaurs in a choking ash fall. Discovered near the remains of the herd was a nesting ground; the nests contain numerous eggs and remains of young, partially grown *Maiasaura* nestlings.

Fossil trackway sites can also reveal much about the daily activities and behavior of dinosaurs to the paleontologist. Gregarious sauropods (dinosaurs such as the *Diplodocus*, *Apatosaurus*, or *Camarasaurus*) have left their huge and parallel trackways along what is now the Purgatory River in Colorado, showing us that

they ambled peaceably side by side. In Brazil a set of tracks reveal that a small group of giant sauropods, both adults and juveniles, traveled together, followed closely by a sinister pack of thirty-five predatory carnivores. These moments in time, preserved in the fossil record, provide information that is useful in reconstructing the life of the dinosaurs.

Recent dinosaur art reflects new interpretations of dinosaur locomotion achieved through detailed scientific investigation. Illustrators of the new school show tails up off the ground and dinosaur body postures that are different than previously assumed. *Tyrannosaurus rex* and other carnivorous dinosaurs are shown moving with their bodies positioned horizontally relative to the ground rather than stalking upright. The front legs of stegosaurs and horned dinosaurs are brought under the body and closer to the center of gravity for more efficient support. Some di-

nosauers are thought to have been warm-blooded and capable of rapid locomotion. The emerging new look of dinosaurs is one of ever sleeker, capable, and more varied animals successfully filling almost every ecological niche occupied today by modern birds and mammals.

Sylvia Czerkas, guest curator for the exhibit *Dinosaurs Past and Present*, is a professional artist whose work has been shown in galleries and museums throughout America. She was guest curator and exhibits coordinator for *Death of the Dinosaurs* at the Griffith Park Observatory planetarium and a continuing series of Charles R. Knight museum exhibits presented in conjunction with her co-authored book *Dinosaurs, Mammoths, and Cavemen: The Art of Charles R. Knight* published in 1982. She is the founder of the Dinosaur Society and a member of the Society of Vertebrate Paleontology.



Stenonychosaurus and Dinosauroid by Ron Séguin (1982). Séguin and paleontologist Dale Russell have collaborated to produce a glimpse into an alternate future, one in which the dinosaurs did not become extinct but evolved into the dominant humanoid

life form. They posit Stenonychosaurus as a possible ancestor for the intelligent dinosauroid. Used with permission of the National Museum of Natural Sciences, Ottawa, Canada.



DINOSAURS PAST AND PRESENT

Dinosaurs Past and Present surveys contemporary artists who are illustrating the most recent and exciting discoveries about dinosaurs. It also offers a historical review of the great illustrators of the past. The exhibit—containing more than 150 paintings, sculptures, and other pieces—will be shown in the Olympics Gallery beginning February 15, 1986, and continuing through August 31, 1986. Organized by the Natural History Museum of Los Angeles County, and Guest Curator Sylvia Czerkas, it will travel to the Denver Museum of Natural History; the National Museum of Natural Sciences of Canada, Ottawa; the New Mexico Museum of Natural History, Albuquerque; the National Museum of Natural History, Smithsonian Institution; the American Museum of Natural History, New York; the new Tyrrell Museum of Paleontology, Drumheller, Alberta; and the Royal Ontario Museum, Toronto.

Diplodocus longus
Versus *Allosaurus*
fragilis by Gregory
Paul (1978, 1983,
1985). The scale is
balanced between
predator and prey as
one *Diplodocus* uses
its whiplike tail to
repel an *Allosaurus*
attack. The gathered
momentum of the
tail was capable of
inflicting severe
damage on the pred-
ator. Another mem-
ber of the herd turns
to face the predator
much as a lead
female elephant will
stand ground to help
the rest of the herd
escape.

THE MERCEDES-BENZ CENTENNIAL

One Hundred Years of the Automobile

The automobile and Mercedes-Benz share a centenary that will be celebrated throughout the world. In southern California the Natural History Museum of Los Angeles County and Mercedes-Benz of North America have produced an exhibit that will run from January 13 to July 6, 1986. A collection of automobiles produced by Mercedes-Benz and its predecessor companies, representing one hundred years of manufacture, has been assembled for the first time. Supporting displays including technical materials and graphics accompany the cars on exhibit in the Ground Floor Automobile Gallery.

Few technological developments have produced so great an impact on our world as the automobile. January 1986 marks the end of the automobile's first century; that anniversary is also the centennial of the Mercedes-Benz automobile.

The quest for a means of self-propelled transportation was centuries old when the invention of the steam engine provided the first hint of success. Even after that development, progress was slow. Thomas Newcomen's 1712 steam engine was part of the building in which it operated. Not until Nicholas-Joseph Cug-

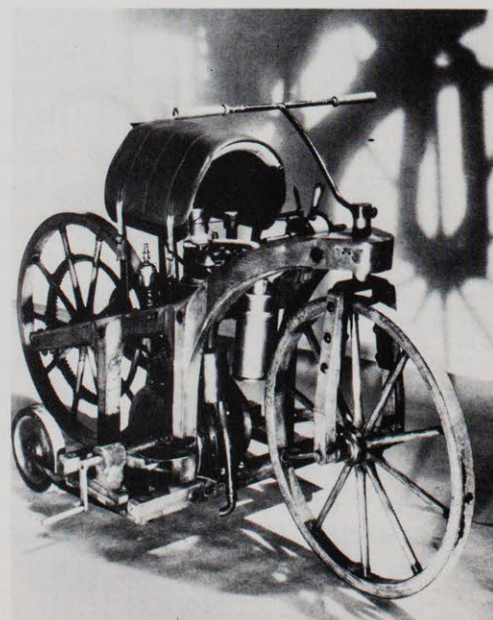
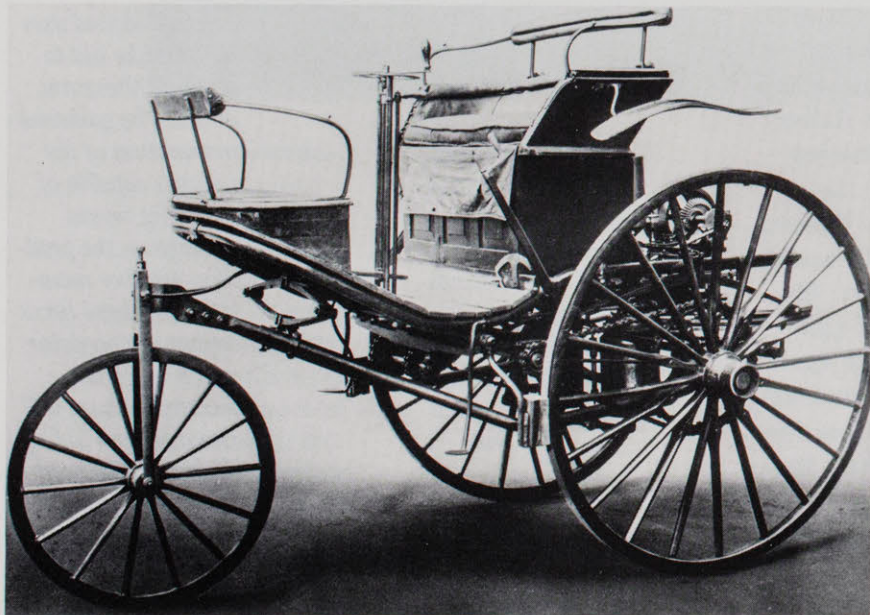
not's steam-powered tricycle of 1770 was the steam engine reduced to more manageable proportions. By the early 1850s land transportation vehicles powered by petroleum-fired boilers were in limited use. The advantages of petroleum fuel for the future automobile were clear; it was easily transported and it possessed considerable explosive force.

A marked improvement in stationary gas engine designs came in 1860 with the engine developed by Etienne Lenoir. Sixteen years later Nikolaus Otto refined the four-cycle engine, which led to further experimentation on power sys-

tems suitable for self-propelled vehicles. During this period future auto wizards Gottlieb Daimler, technical director of the German Deutz gas engine factory, and Carl Benz, who tinkered with a two-cycle gas engine and founded his own gas engine manufacturing enterprise, gained valuable experience.

Parallel occurrences were commonplace in automobile development. More than one inventor might labor on the same problem, come up with identical solutions, and then be denied recognition by failing to file timely claims with patent authorities. Gottlieb Daimler and Carl Benz present the perfect example of this phenomenon. The two Germans were working to perfect a petroleum engine for a road vehicle. Although they lived only sixty miles apart—Daimler in Canstatt and Benz in Mannheim—most historians believe that each was unaware of the other. In 1885, each gentleman announced his answer to the self-propelled transportation problem. To Gottlieb Daimler, who placed his engine on a two-wheeled, bicycle-styled vehicle, goes the distinction of having created the first motorcycle. Carl Benz, who chose to place his engine on a three-wheeled carriage he called a *Motorwagen*, was granted German patent 37453 on January 29, 1886, and has been credited with the first gas-engine automobile.

The Daimler Motoren-Gesellschaft, founded in 1890, and Benz & Cie, which had hired fifty workers to produce cars



EXHIBITION

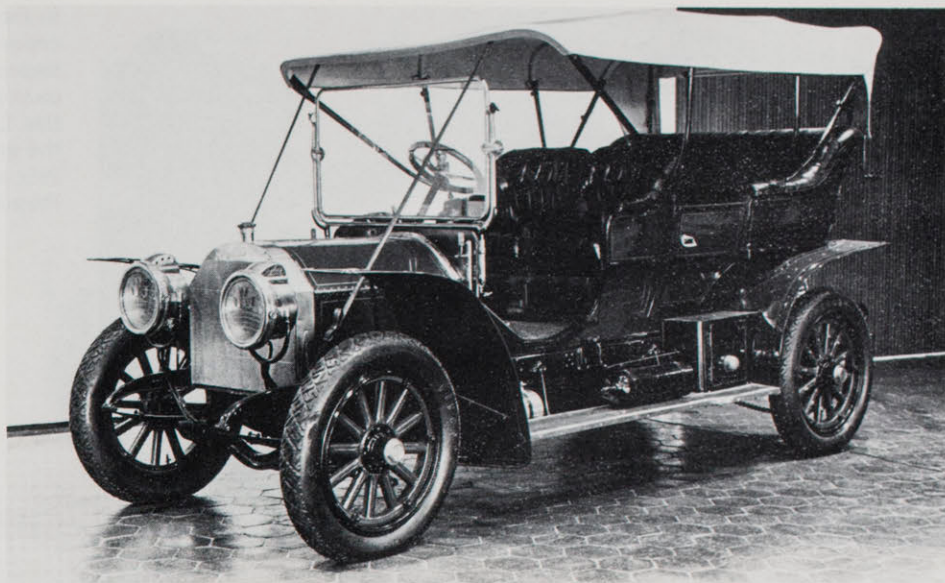
by JAMES ZORDICH

Photographs Courtesy of
Mercedes-Benz of North America

by 1888, both produced gas engines for road vehicles. Both companies also found diversified applications for the new, smaller power systems. These included trucks, boats, streetcars, fire engines, and the first steerable lighter-than-air craft, a dirigible. The fortunes of each enterprise rose quickly.

As their fortunes rose, so did competition accelerate between Benz and Daimler. Both companies opened exhibits at the 1889 World's Fair in Paris, and both participated in competitions. In 1894 a Daimler vehicle won the world's first automobile race, held in France. The next year a Benz was runner-up in the first American automobile road contest, the Chicago *Times-Herald* Race. Daimler licensed engine designs and contracted for production with Peugeot and Panhard & Lavassor of France; the early French automobile industry was greatly influenced by both Daimler and Benz.

Benz and Daimler automobiles exhibited at the 1893 World's Columbian Exposition in Chicago may have influenced fledgling inventors in the United States. J. Frank and Charles Duryea, who are credited with the first successful American automobile, attended the exposition. Although the Duryea brothers' research was well underway by that time and bore no similarity to German technology, both were interested in the Daimler and Benz products. Piano manufacturer William Steinway, who had founded the Daimler Motor



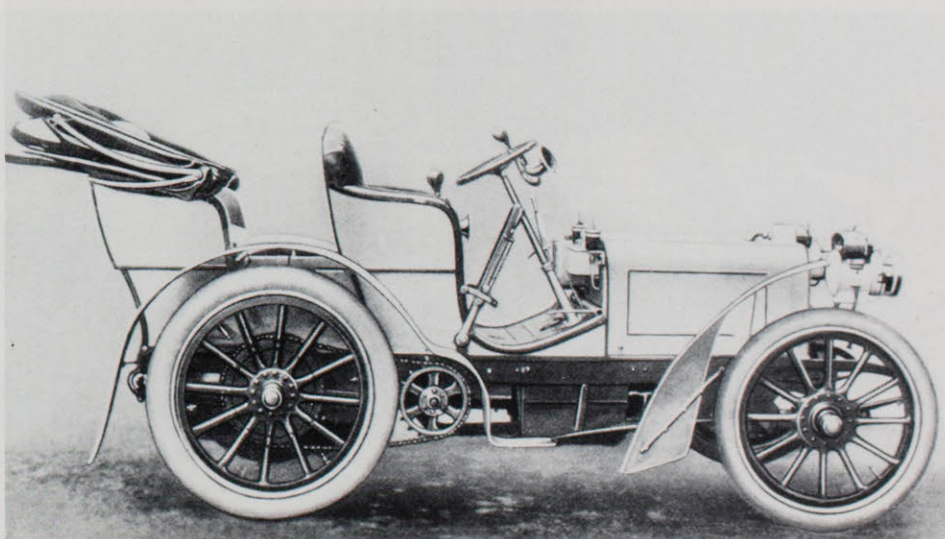
Page 14, left: An 1888 version of Carl Benz's first car, a three-wheeled automobile powered by a one-cylinder engine. He tested the car that is considered to be the first successful gas-engine automobile early in 1885 and was granted a German patent for it on January 29, 1886. In 1890 Benz's firm, Benz & Cie, began to make a four-wheeled automobile.

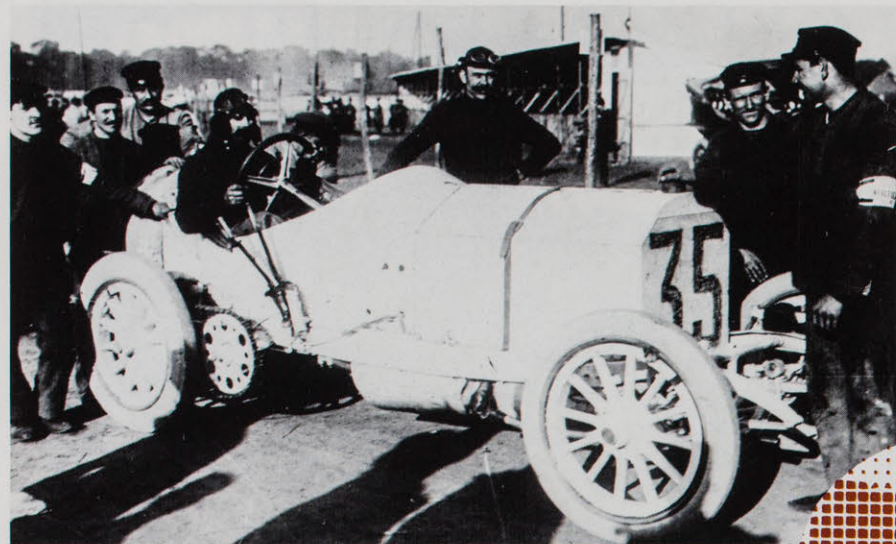
Page 14, right: Gottlieb Daimler mounted a gas engine on a two-wheel frame, creating the world's first motorcycle, which he built and successfully operated in November 1885. Daimler had earlier developed a carburetor that made possible the use of gasoline as a fuel, and he patented one of the first high-speed combustion engines. By 1890 Daimler had founded the Daimler Motoren-Gesellschaft in Canstatt, Germany, and was producing engines for trucks, boats, streetcars, fire engines, and a dirigible as well as for automobiles.

Page 15, bottom left: A 1901 photograph of Mercedes Jellinek, who was the daughter of Emil Jellinek, consul general of the Austro-Hungarian empire and avid automobile enthusiast. When a 1901 "New Daimler" christened "Mercedes" by Jellinek won at the Speedweek Contests in Nice, the name took hold and other Canstatt Daimlers became known as "Mercedes." The name was officially registered by Daimler in 1902.

Bottom, right: The 1901 Daimler christened "Mercedes" by Emil Jellinek.

Top: A Mercedes built around 1905 in New York by piano manufacturer William Steinway under license to Daimler. Daimler also licensed its engineering designs to manufacturers in France and England.

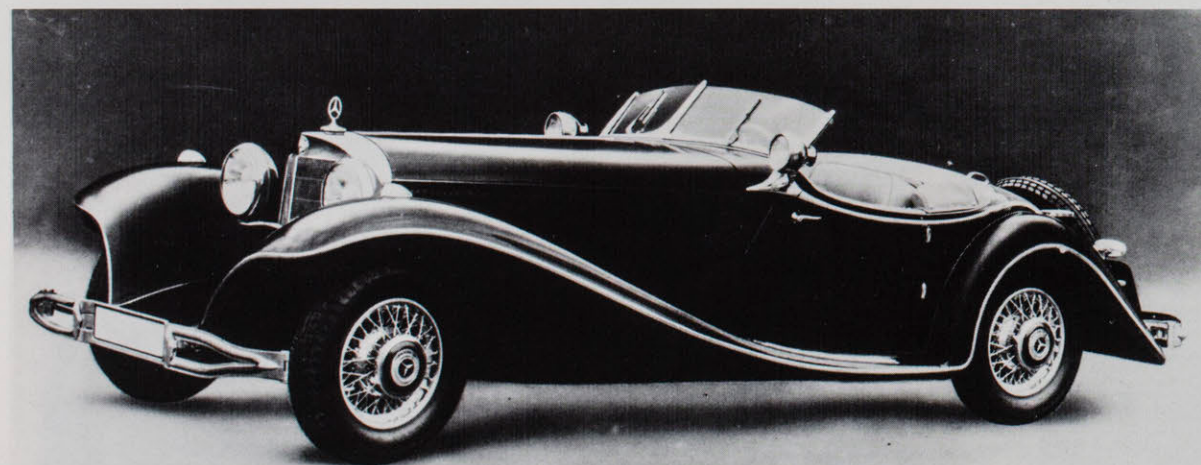




In the early years of auto racing, Mercedes and Benz automobiles established impressive records in track and endurance contests. Racing car driver Christian Lautenschlager is seen here behind the wheel of the 150-horsepower Grand Prix model Mercedes that won the 1908 French Grand Prix.

Company in New York late in 1888, exhibited the Daimler car. Later, Steinway expanded his role from distributor to Daimler manufacturer in this country.

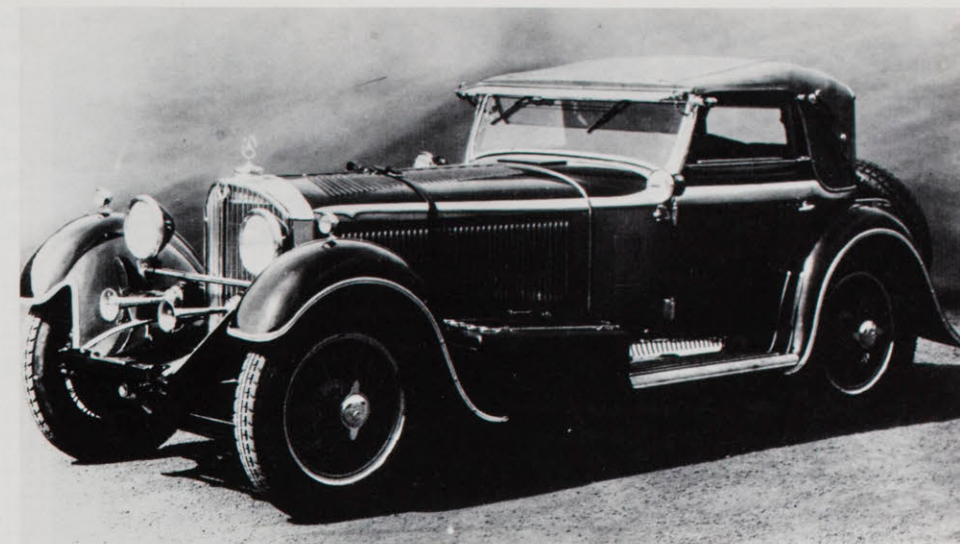
A group of talented and motivated engineers guided the development of Mercedes-Benz. The most important among them was Wilhelm Maybach, who had worked with Gottlieb Daimler as chief designer at the Deutz gas engine factory and was intimately involved in the design of all early Daimler products. Largely through his inspiration startling and far-reaching changes in automotive engineering took place. For example, his 1900 designs for a new type of vehicle, based on the earlier Phoenix series, changed the course of automotive history. No longer was the automobile a converted carriage with a power plant; now it was a fully engineered machine. The new Daimler—which was built on a rigid frame with the engine placed in front and not underneath the vehicle, and which also had a selective change gearbox—inaugurated modern automobile design.



A 1935 500K Mercedes-Benz roadster. A similar car, winner of the 1985 Pebble Beach Concours d'Elegance, is on display in the Natural History Museum's Mercedes-Benz exhibit.

Although the market collapse of 1929 meant the end of the really ostentatious production-built automobile, there continued to be a demand for the top of the Mercedes-Benz line. This 1936-37 540K coupé incorporated some of the best custom coachwork available.

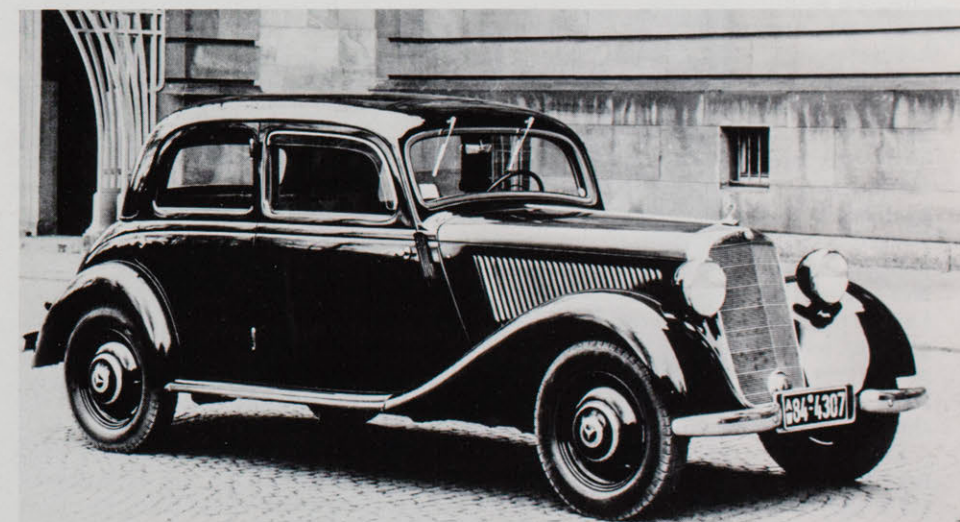
The 1928 Mercedes-Benz SSK. In 1924 the Daimler Motoren-Gesellschaft and Benz & Cie entered into an "association of common interest" and two years later Daimler-Benz AG was established. Seen as a hood ornament on this car is a symbol combining the Mercedes three-pointed star with the Benz laurel wreath.

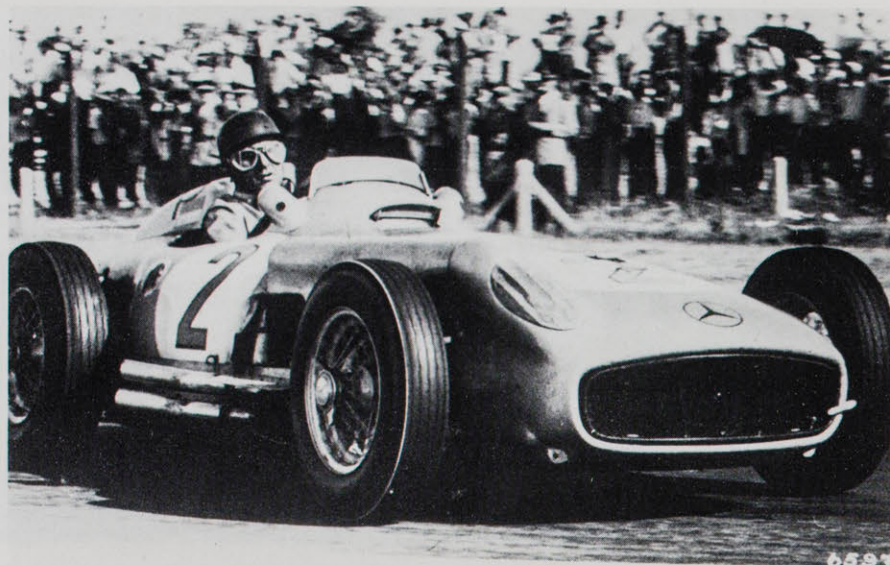


Emil Jellinek, consul general of the Austro-Hungarian empire, exerted further influence over the destiny of the new Daimler. Jellinek contracted to purchase thirty-six of the new cars and was granted an exclusive concession to sell Daimlers in Austria, Hungary, France, Belgium, and America. The model was originally named the "New Daimler," but when Jellinek rechristened one auto "Mercedes," after his daughter, and it won at the Speedweek Contests in Nice, the name took hold. After the 1901 Mercedes victory in southern France, other winning Daimlers were referred to as "Mercedes." The Mercedes name, which would become one of the most important trademarks in the automobile industry, was officially registered by Daimler Motoren-Gesellschaft in 1902.

During the first three decades of the twentieth century, Daimler (Mercedes) and Benz automobiles established impressive records in track and endurance contests. The Gordon-Bennett Cup Race of 1903, in England, was won by Camille Jenatton driving a 60-horsepower Mer-

It was not until 1948 that Mercedes-Benz recovered from the destruction wrought by World War II. This 1949 170D (Diesel) was one of Mercedes's first post-war motorcars.





Juan Manuel Fangio, an Argentine driver who won eleven of sixteen world championship races in 1954 and 1955, driving a W-196 Formula I in the Grand Prix of Buenos Aires in 1955. Mercedes-Benz ceased to participate in Grand Prix racing in 1956 and concentrated on performance durability in its production line models.

cedes. In 1904 William Vanderbilt, driving a 90-horsepower Mercedes, scored seven records in America, including a new land speed record, an undreamed of 92.3 miles per hour. During these years Benz also established its credentials in worldwide speed contests. The "Blitzen-Benz," a 200-horsepower, four-cylinder racing machine, captured international victories from 1908 to 1912 and posted many speed records that went unchallenged until 1924.

During World War I the automobile industry reorganized to produce trucks for military use. After the war there was a quick return to passenger car production. Innovation was a German strong point, and a rapid economic recovery throughout the world provided renewed markets for improved Benz and Mercedes automobiles. At Daimler, Ferdinand Porsche exerted a formidable influence on Mercedes automotive engineering and design from 1923 to 1928. A few years later, the S series of Mercedes sports cars, highlighted by the SSKL of 1931, a vehicle rated at 300 horsepower with a top speed of 150 miles per hour, provided an important boost to the company's engineering reputation and marketing success.

In 1924 the Daimler Motoren-Gesellschaft and Benz & Cie entered into an "association of common interest." Two years later their consolidation was formalized by the establishment of Daimler-Benz AG. Unification was symbolized by merging the Mercedes three-pointed star with the Benz laurel wreath and use of the name "Mercedes-Benz." Drawn together were the formerly independent but parallel engineering efforts of two very important automotive manufacturers as well as a combination of their production potential.

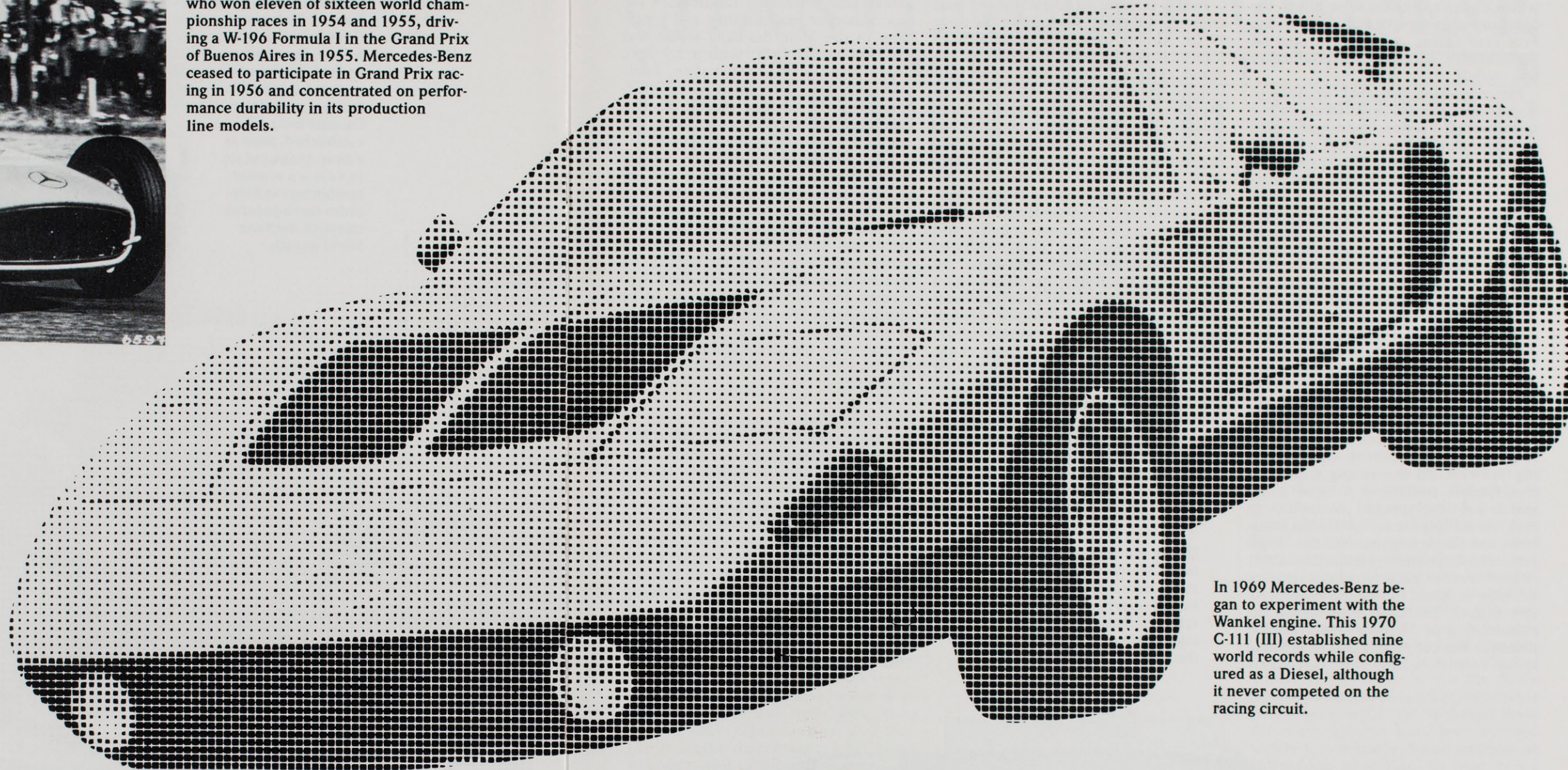
During the 1930s the Mercedes-Benz luxury car line was represented by the 500K and 540K models. These powerful, well-engineered automobiles incorpo-

rated some of the best custom coachwork available. At the same time, a new fleet of racing machines, the W-25, W-154, and W-163 Grand Prix racers, was just as successful as the expensive passenger line. The racing armada of aerodynamically engineered vehicles commanded victories throughout the world and contributed mightily to the Mercedes-Benz image. Innovation in passenger car design was also significant during this decade and included the development of independent front-wheel suspension, steel unit-body construction, and the rear-engined chassis (predating its use in the Volkswagen). The first mass-produced Diesel-engine automobile, the Mercedes-Benz 260D, appeared in 1936.

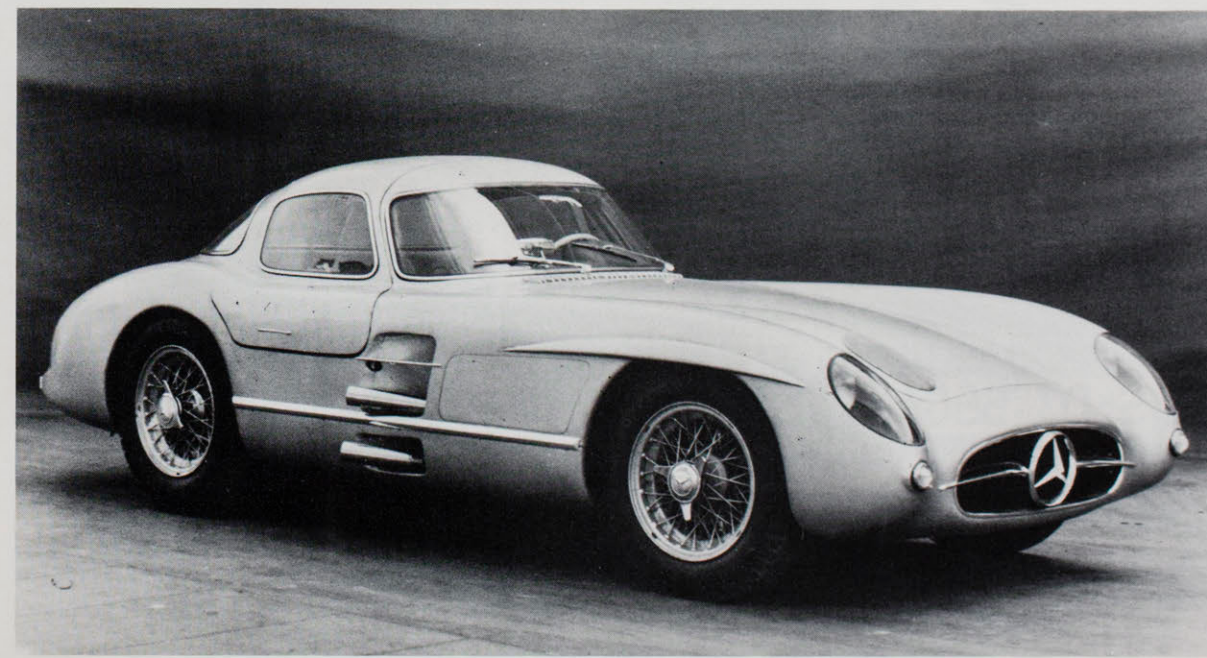
Destruction wrought by World War II brought production of Mercedes-Benz automobiles almost to a standstill by spring 1945, and facilities were not reconstructed until 1948. Economy of design was the guidepost that influenced

the first postwar automobiles. The Diesel series was successfully resumed as the 170D and was accompanied by a new four-cylinder gasoline engine version, the 170S.

In the 1950s sports cars became enormously popular. Mercedes-Benz was well-represented in sports car road races, especially with its 1954 300SLR. The new 300SL (SportsLight) series combined all the most advanced aspects of automotive design and engineering in a low-profile machine, available in several configurations, but best known as the 300SL Gullwing. A smaller two-seater sports touring car, the 190SL, was introduced at the same time and became popular with those who wanted a sports-type vehicle also practical for daily driving. Utilitarian touring machines such as the 180, 180D, and 220A series provided a firm foundation upon which Mercedes-Benz based its continuous growth. In 1956, as a result of the public



In 1969 Mercedes-Benz began to experiment with the Wankel engine. This 1970 C-111 (III) established nine world records while configured as a Diesel, although it never competed on the racing circuit.



One of the best-known and most collectible cars of the 1950s, the 300SLR Gullwing.

outcry over an accident at Le Mans in which eighty spectators were killed, the company ceased participation in Grand Prix road racing and concentrated on performance durability in production line models.

Mercedes-Benz dedicated the 1960s to improvement and diversification of the sport-touring S series. Engineers worked on further development of fuel injection, automatic transmission, air suspension, and Diesel engines. In 1963 Mercedes-Benz terminated production of the 190SL and 300SL series and substituted the new 230SL roadster, introduced at the Geneva Auto Show. That year Mercedes-Benz also brought forth another new model, the 600. *Der Grosse Mercedes 600* ("the Grand Mercedes") was comparable in amenities to other luxury cars of the time but retained the familiar appearance of standard models. Innovation in refinement of body design and mechanical engineering continued; the epitome of high-performance automobiles was the 300SEL, equipped with a 6.3 liter V-eight engine.

Although Mercedes-Benz was no longer involved in proving its engineering prowess on the racing course, it nonetheless continued to lead in research and development, particularly in problem solving for actual driving situations and the development of new high-performance power systems. The C-101 of 1969 was the prototype for a series of vehicles designed to test the Wankel rotary engine. The C-111 represented the culmination of Mercedes-Benz Wankel research; the car established nine world speed records while configured as a

Diesel.

Public interest in Diesel power was aroused by the fuel shortage in the early 1970s. Almost overnight availability of Mercedes-Benz Diesel automobiles became critical. Both American and foreign manufacturers endeavored to capitalize on the opportunity; they quickly introduced Diesel models, but none equaled the Mercedes-Benz 220D. Expansion of the Mercedes-Benz Diesel series led to the 240D and the 300D, the world's first five-cylinder Diesel, both introduced in 1975. Production of a full complement of sedans, coupés, and sports cars continued, along with the new 450SEL 6.9 liter, considered by many to be the fastest luxury sedan on the road. The little 230SL sports roadster of the early 1960s had passed through many metamorphoses to appear as the 450SL. Turbo-charging also came of age and was included as standard equipment on many Mercedes-Benz gasoline and Diesel models.

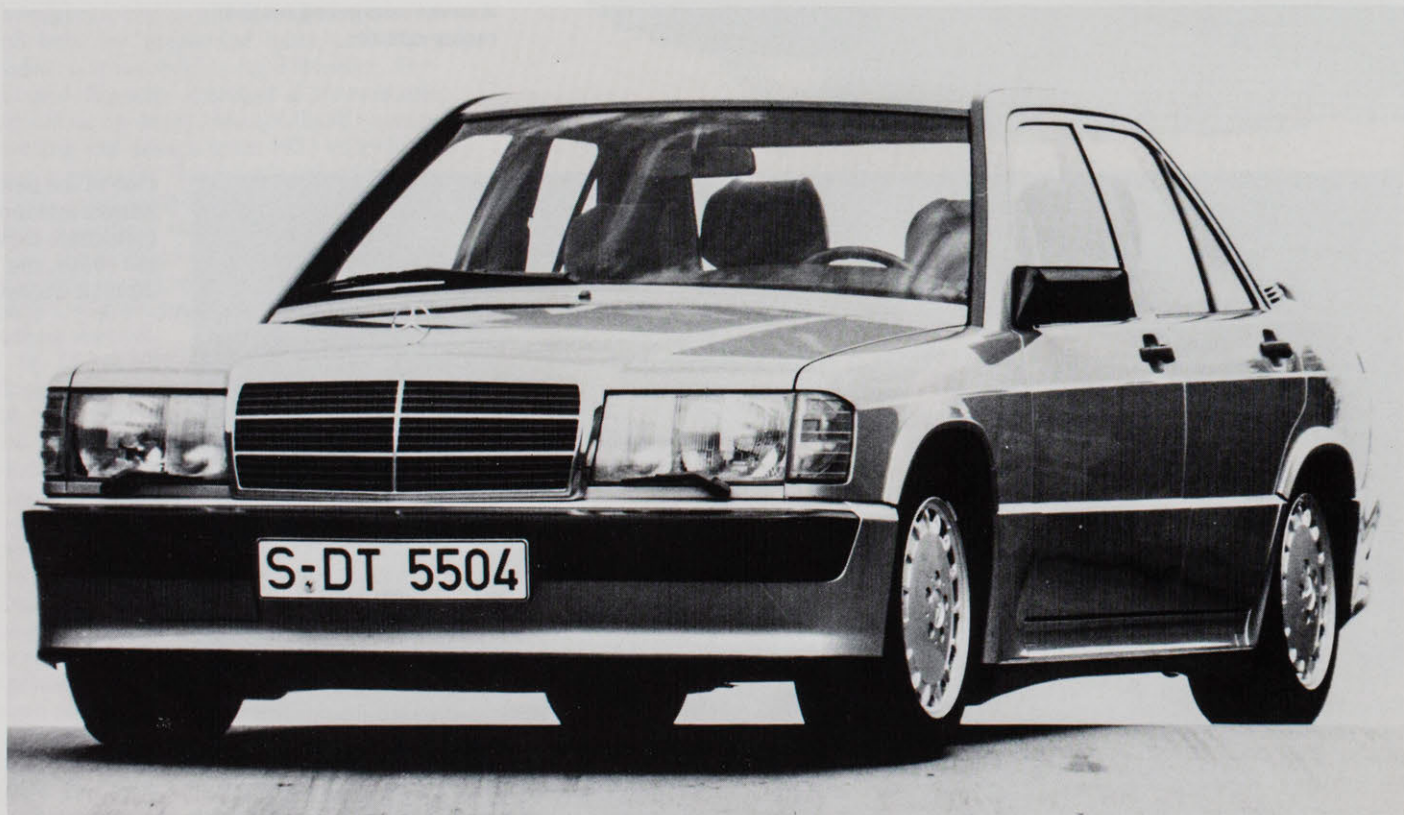
Performance engineering matured at Mercedes-Benz as the hallmark of the 1980s. Like all manufacturers, Mercedes-Benz incorporated new technology into its cars. Electronics and computerization contributed to overall improvement

One of the most recent additions to the Mercedes-Benz stable, the 190E, introduced in 1984. This small sedan has a 2.3 liter, four-cylinder, sixteen-valve, fuel-injected engine, and is intended for the midsize, midprice market.

in performance and efficiency and at the same time provided diagnostics for supervision of maintenance and repair. New to the Mercedes-Benz stable was the 1984 model 190E, with a 2.3 liter, four-cylinder, sixteen-valve, fuel-injected engine. This small sedan incorporated all the modern innovations in a form that was intended to appeal to the market for midsize, midprice cars.

The centennial anniversary of the automobile and the beginnings of Mercedes-Benz are inextricably related. In a remarkably short time, the automobile has been developed and has become a force that shapes modern economics worldwide. Furthermore, our society has become dependent on the automobile to a point that life without it would be unimaginable. If so much has happened in one century, what might be revealed by the time our descendants celebrate the bicentennial anniversary of the automobile?

James Zordich, Associate Curator of Business and Industrial History, has been responsible for the museum's automotive collection for the past twenty years and has produced several special automotive exhibits. He has served as president of the Horseless Carriage Club of America and as editor of the Horseless Carriage Gazette and has written many articles on automotive history. Mr. Zordich has also completed award-winning restorations on automobiles in the museum's collection. He is the official curator/coordinator of the Mercedes-Benz One-Hundredth Anniversary Exhibition.



CHANTERELLE CUISINE

A N D T H E

FEARFUL PHILISTINE

by WILLIAM BREEN

But, however they may be served and eaten, mushrooms you must make yours at any cost. To say you do not like them is confession of your own philistinism. Learn to like them; will to like them, or else your sojourn on this earth will be a wretched waste.

Elizabeth Robins Pennell: *The Feasts of Autolycus* (1896)

Yes, but *which* mushrooms? We certainly don't want our sojourns on earth to be cut short by a poisonous toadstool—that would be a “wretched waste” indeed! Consequently we play it safe; we go to the market, buy the common cultivated mushroom *Agaricus bisporous*, go home, throw it on a steak, or, if we are adventuresome, eat it raw in a salad. After all, a mushroom is a mushroom is a mushroom, isn't it?

Not on your life! I don't think so, and that great American pioneer of mycophagy (mushroom eating, to those of us with little Latin and less Greek), Kate Sargent, didn't think so either. That dear lady thought that *Agaricus bisporous* was very good to eat and that its close relative, the white-capped, pink-gilled meadow mushroom (*Agaricus campestris*) was even better. What she didn't think was that those two mushrooms were the only ones in the world that could be safely eaten and enjoyed.

Precocious Kate! She was right, but her American contemporaries weren't ready to know it. When her cookery book *One Hundred Mushroom Receipts* was launched in Cleveland in 1899, it bravely set forth on a sea of Victorian aversion—and there it ignominiously sank. Martyred mycophile! Both she and her book had gone too far.

Time goes by, and we ask, “What is ‘too far’ these days?” Sadly, even now most Americans would regard many of Kate Sargent's receipts as highly peculiar, even terrifying dishes. How do you feel about “*Fistulina hepatica* Soup,” for instance? I suspect that the liver twitches apprehensively, while something seems to signal the advent of heartburn—or worse. Is “Baked *Tricholoma gam-*

bosum” any better? True, some of us may know that this is just a dish of the Saint George's mushroom. But what do we mean *just*? The dragon died, didn't it? Then there is “*Cantharellus cibarius* Stew” provoking, as it does, moribund puns comparing *cibarius* with *bury us*.

Apologies to all those who know that *Cantharellus cibarius* is but the botanical name for the delightfully edible yellow chanterelle. Still, many have only the idea that this is some kind of mushroom. Indeed it is. It is Some Kind of Mushroom! It is one of the Big Three favored in mushroom cookery; the other two are morels and ceps. In Europe these three mushrooms have been revered widely for centuries. Since attempts at cultivation have thus far been fairly unsuccessful, all three must still be harvested in their natural forest environment.

Fortunately for those of us who love mushrooms, fresh chanterelles, morels, and ceps are now available in many supermarkets and specialty stores for at least part of the year. Fresh chanterelles are the most frequent and abundant of the three, so let's have a look at that mushroom first.

Chanterelles are easy to spot because they are as golden-orange as apricots. The beautiful curving trumpet form is also distinctive. When we find chanterelles, how do we determine which are of the best quality? The answer is that in the market, as in the forest, they must be neither too wet nor too dry. Chanterelles have a tremendous capacity for water absorption. This is a special bonus in cooking with our sometimes larger, more exuberantly formed Pacific states chanterelles and, in particular, our California ones because they harbor a good deal of



The author/artist's fantasy impression of Kate Sargent, American pioneer of mycophagy in the late Victorian era and author of *One Hundred Mushroom Receipts*. She is conceived of as a lady of style and is shown here reading a rude note from Henri, her milliner. He refuses her offer of a sumptuous wild mushroom dinner as payment for his newest creation, an incredibly chic chanterelle toque.



succulent liquid. A mushroom that is too wet, however, will spoil quickly, so when Mrs. Snoopinsky isn't looking, put any suspect chanterelle to the acid test. Seize the thing and press its cap with your thumb. If water appears around the pressure point—don't buy that mushroom! Some may have moist spots of a dispiriting shade of bad-apple brown. To be avoided, needless to say.

Snatch up a chanterelle that appears dry. If you tug at the edge of the cap and it tears down the stem like string cheese, it will be too tough and fibrous to enjoy. Chanterelles with dry brown margins on their caps, or with dry brown streaked areas, can be trimmed—but I would get very lordly about the price of these mushrooms. In doing so, you may discover that your string cheese experiments have inspired Mrs. Snoopinsky to report you to the manager. Discretion is recommended.

Go home with a pound of the best chanterelles you can find. They may be of any size depending on the dish or dishes you intend to prepare. The French are habituated to small ones, but American mushrooms may be of excellent quality even when rather large.

Chanterelles may be kept in the refrigerator for several days, after which the flavor and aroma will gradually diminish to a spectral subtlety—and beyond. (Only use paper bags to store mushrooms. Never store mushrooms in plastic bags or airtight containers. Mushrooms need to breathe.)

You may have noticed the subtle chanterelle aroma in the market, although when they are cool it is sometimes hard to discern. We want to coax that aroma into the nostrils and onto the taste buds. Its special apricot quality is the more interesting since all the apricot's sweetness has been replaced by a kind of piquant mushroom spiciness. The whole has been compared to mushrooms and apricots, peaches, plums, pumpkins, and carrots. *You must decide.* We also want to take full advantage of all that flavorful exudation to which I have alluded.

"Veal or Lamb Chops with Chanterelles and Cream" is a recipe that I consider to be a good introduction to chanterelles—especially our California ones. It is, however, very much in the French manner

and uses the Provençale method of sautéing chanterelles. This recipe can be done with other cuts of veal or lamb—medallions would of course be *très luxe*. Chicken supremes would be fine too, and it's a natural for sweetbreads. Consider doing the chanterelles in cream sometimes as a separate dish—perhaps on toast. New potatoes and some small vegetables would look and taste great in company with any of the meats.

Fresh California chanterelles are perfect for "Veal with Chanterelles and Cream" because they will yield the most liquid. The rub is that you will probably need more water to clean them, and, unfortunately, water robs mushrooms of flavor unless kept to a minimum. Try whenever possible to do the job with just a dampened towel and a clean toothbrush. That won't suffice with most California chanterelles, though, since many caps look as if they had been created by a drunken brownie *pâtissier*. Those deep crevices require well-aimed and potent jets of water—unless dry enough to be otherwise dealt with. The mushroom brushes on the market are not of dimensions that work well with most wild mushrooms.

"Veal with Chanterelles and Cream," as I have said, incorporates the Provençale method of sautéing chanterelles, although French recipes never tell you the real trick of it, which is to continue stirring for a bit after the caramelization of butter and mushrooms essences has occurred. As for the liquid, whether removed for use in other dishes or allowed to evaporate, *tout la même*. The aroma and flavor of the sautéed chanterelles will remain the same—ravishing.

For inveterate steak eaters I am happy to say that there is a way of sautéing chanterelles that makes them perfect as an accompaniment. Just sauté a few sliced onions or shallots in a goodly amount of butter until they are softened. Add lots of sliced chanterelles, lemon juice (half a lemon for half a pound of chanterelles), and salt and pepper. Cover the pan and cook over low heat for fifteen minutes. Chanterelles prepared in this way can also be blended in superb sauces to be served with a lobster or corn mousse.

For plain "Chanterelles Provençale," sauté chanterelles without clarifying the butter (use unsalted butter). I prefer to cut the mushrooms into bite-size pieces when sautéing chanterelles to be served separately rather than sliced lengthwise. A sprinkle of salt, a few drops of lemon juice, and a bit of minced parsley are all the addenda "Chanterelles Provençale" require. Put them in a warm platter, have ready some crusty French bread, butter, and a glass of Chardonnay. I promise you a blissful experience.

Some with whom I discuss cooking now sauté their chanterelles even longer than I do, which results in a chewier texture. The flavor remains uniquely chanterellish but also acquires something akin to that of the cashew nut. It's a nice variation.

Chanterelles have a marked affinity for tomatoes, and the Provençale base is a fine one with which to use them as in the recipe "Chanterelles with Tomatoes." Another idea stemming from the basic sauté is seen in "Chanterelles with Marsala." For that matter, chanterelles and various wines (either dry or sweet—depending on the dish and the sauce) can be commingled beautifully with many of those silky French stock-based sauces. Be inventive but respectful. The chanterelle flavor is shy, even fugitive. You will never be disappointed if you let it tell you what to do.

*For wine we left our heath, and yellow
brooms, and cold mushrooms; ...*
John Keats: *Endymion* (1818)

I approve of leaving home for a good bottle of wine, but only if one's intention is to return shortly and enjoy it with those cold mushrooms. We will have prepared them in a California version of "Chanterelles à la Grecque."

If you haven't left for that bottle of wine, my friend Jean Walzar, professional wine taster and founder of *Dégustation* in San Francisco, has this to say: "A fine champagne is perfect with marinated chanterelles. However, a 1984 Muscat from the Pat Paulsen vineyard would be excellent too. It has the requisite dryness, and its floral bouquet is even suggestive of chanterelles."

I agree. The best thing to do is to gather up everything and get the wine on the

(Continued on page 24)



VEAL OR LAMB CHOPS WITH CHANTERELLES AND CREAM

4 oz unsalted butter
2 T freshly strained bacon fat
1½ lbs fresh chanterelles, any size
1 c heavy cream
1 c veal stock or substitute stock
1 large pinch nutmeg
6 ¾-inch thick veal chops or six
1½-inch thick lamb chops
2 minced shallots
salt and white pepper
½ c dry white vermouth
2 T finely chopped fresh parsley

Note: Veal stock may be made ahead of time from any standard recipe. A quick and excellent substitute is to use a scant teaspoon each of powdered chicken stock base and powdered beef stock base to one cup of hot water.

Ready the stock in a saucepan. Put aside. Prepare bacon fat. Melt the butter in a small heavy-bottomed skillet over low heat. Skim off the foam that rises to the top, and strain off the clear yellow butter into a large skillet of the same type. Discard the white residue left in the small skillet and set the small skillet aside. To your clarified butter add the bacon fat and put one-third of the thusly blended butter into the small skillet. Put the large skillet aside.

Coarsely slice one-half pound of chanterelles and add them to the stock. Cover the saucepan and allow chanterelles to cook gently in stock for fifteen minutes. In the meantime, slice the remaining pound of chanterelles so that the pieces are about one and one-half inches long. The forms will vary, and it is nice when possible to emulate the chanterelle form in miniature. Sauté the mushrooms in the small skillet at the highest possible heat, stirring carefully with a wooden spoon. The disgoring of the liquid will be considerable and rather sudden. Immediately drain off as much chanterelle liquid as possible into the saucepan con-

taining chopped chanterelles and stock. Re-cover. Add one tablespoon of the clarified butter mixture to the chanterelles and continue sautéing until all the liquid has evaporated. You *must* keep stirring—even after the evaporation has occurred. A most wonderful aroma will suddenly arise from the pan because the butter and mushroom essences will be caramelizing and coating each chanterelle slice with a delectable glaze. Stir a moment longer and remove from the burner. Reserve and keep warm.

Purée the chanterelle and stock mixture in a blender or food processor. Replace in saucepan and add the heavy cream and nutmeg. Gently boil until the chanterelled cream is reduced to one and three-quarter cups. Salt and pepper to taste. Put aside, keeping warm.

Sauté the six chops in the large skillet that contains the remaining clarified butter. Cook them until nicely browned, and in the process sprinkle them lightly with the minced shallots. Transfer the meat to a serving dish and keep it warm.

Deglaze the large skillet with the vermouth, boiling the liquid down to a syrupy consistency and scraping in the little brown bits. Tip in the chanterelles and then the chanterelled cream. Bring all to a boil. Turn off the heat. Have ready six warm dinner plates. Put a chop on each, cover it with the sauced chanterelles, sprinkle with parsley, and serve.

CHANTERELLES WITH TOMATOES

2 T butter
2 T olive oil
1 clove garlic, minced
1 onion, chopped
1 sprig fresh basil
1 lb chanterelles
2 T + ¼ c dry red wine
3 large skinned & chopped tomatoes
salt and pepper

Use half of the butter and half of the olive oil to sauté one pound of chanterelles. Drain off the liquid into a saucepan; set the chanterelles aside. Add the minced garlic, the onion, and the basil to the liquid and simmer until the liquid is reduced by half. Add two tablespoons of dry red wine, the tomatoes, and simmer until the tomatoes are cooked but not mushy. Put aside.

Complete the sautéing of the chanterelles, adding a little more olive oil. Remove the chanterelles and add them to

the tomatoes. Add to the pan in which you have sautéed the chanterelles one-quarter cup of red wine and boil until reduced by half. Add tomato and chanterelle mixture to the pan. Salt and pepper; stir and simmer a few seconds and voilà, an excellent side dish that serves four.

For another chanterelle and tomato experience, thin the whole with a light, smooth, and freshly prepared tomato sauce. Resisting overseasoning, toss this with a delicate pasta and embark for Italy!



CHANTERELLES WITH MARSALA

¼ c Marsala sherry
1 lb chanterelles

At the point in a basic sauté when the chanterelles disgorge their liquid, add Marsala. Continue to stir and cook until

the Marsala has evaporated and has been incorporated into the glazing of the chanterelle pieces. This dish is especially nice with duck or pork. Moistened with a rich stock and mixed with wild rice it is a fine stuffing for a game bird.

CHANTERELLES A LA GRECQUE

2 lbs chanterelles; 1 lb of any size,
1 lb small mushrooms
½ c water
¼ c distilled white vinegar
¼ t coriander seeds crushed to powder
¼ t grated fresh ginger
1 small bay leaf
½ t sugar, salt, & white pepper
½ c olive oil
minced parsley
lemon juice

WITH TOMATOES

3 skinned & chopped tomatoes
1 small chopped onion

Slice one-half pounds of the chanterelles of any size in such a way as to end up with small, thin slices. Put aside. Slice the second half pound of the any size ones into bite-size pieces. Put aside.

Put the half pound of chanterelles that you have daintily sliced into a small skillet, the bottom of which you have covered with water. Stir them with a wooden spoon over high heat until they disgorge their liquid. Drain it off *lightly* into a small pot. Reserve the chanterelles in a bowl and keep the slices very, very moist.

Do the same with the second half pound of the chanterelles of any size in the same skillet, draining the liquid into the same pot but keeping these bite-size pieces in a separate bowl. These mushrooms and those you have set aside above can be used for "Cream of Chanterelle Soup."

Now add the half cup of water, the vinegar, coriander seeds, ginger, bay leaf, sugar, salt, pepper, and olive oil to the chanterelle liquid in the pot. Boil all for fifteen minutes. Remove from heat and strain the marinade through a paper towel set in a strainer. Put in the small

pot, adding the pound of small chanterelles. Leave the smallest ones intact, but halve or quarter the others depending on size. Bring all to a boil and boil for a few seconds *only*. Allow to cool, and adjust the salt and pepper.

The yield of marinated mushrooms will be about a pint. Keep the marinated chanterelles refrigerated in an airtight container. They will be fine for a week, but if you intend to serve them weeks or months later, you must remove them from the marinade and refrigerate them covered with fresh olive oil. Bring them to room temperature before serving, however, for the oil will have congealed. The leftover marinade will make a nice salad dressing.

Serve the marinated chanterelles with but a small amount of the marinade and stir into it a little minced parsley and a few drops of lemon juice. Lemon juice can be a vampire of flavor as well as an enhancer, so be cautious and taste as you go. Adjust salt.

An exotic variation of this recipe is to stir in a little apricot—nectar, purée, or sweet and sour sauce. Do this an hour before serving; omit the lemon juice, and use fresh lime juice instead. Add parsley, stirring well, just before serving. I like a dash of cayenne pepper as well.

"Chanterelles à la Grecque" are also very good with tomatoes. Prepare the mushrooms as above, but remove the chanterelles after the brief boiling. Add the tomatoes and onion to the strained marinade, boiling until a fairly thick sauce results. Replace chanterelles, stir, and cool.

Still another version calls for the grated peel of half an orange and the juice to be added from one orange to the tomatoes. You may want to add a bit more sugar.

way to a picnic. Take the "Chanterelles à la Grecque," a double cream cheese such as a Saint André or a Borsault, some crusty French bread, a pâté maison, and some fresh fruit. Think positively.

No negativism. Although it would seem that you have chanterelles left over from "Chanterelles à la Grecque," I have *not* left you in the lurch with a pound of chanterelles. Now we are going to finish sautéing them and use those chanterelles for making soup. It is one that a friend whom I call my Jewish mother finds absolutely magnetic—probably because of the chicken stock it contains. This "Cream of Chanterelle Soup" also contains another restorative ingredient.

We can begin to see the myriad culinary possibilities offered by fresh chanterelles. There are others: try a tomato and chanterelle bisque. How about chanterelle biscuits? A chanterelle soufflé is nifty, as are creamed chanterelles *en croûte*. (But why can't they invent a low-calorie puff pastry?) And there is nothing wrong with sukiyaki and chanterelles or delicate sweet and sour chanterelles with apricot, since the mushrooms go well with all meats and poultry. Braised chanterelles done covered in the oven at medium heat for one and a half hours in a braising liquid of beef stock and a discreet amount of dry sherry are superb with beef. Change it to chicken stock and dry vermouth to accompany chicken. Be inventive, but always let the chanterelle do the talking. (Alas, the fearful philistine listens not.)

I once knew a lady from Budapest who thought to thrill me by serving chanterelles prepared in the Hungarian manner with paprika and sour cream. The thrill chilled when I realized that she had peeled each one of them. Peeling had become her habit in cooking with *Agaricus bisporous*. "It makes them look so squeaky clean," said she. Yes, but it also makes them so squeaky tasteless. Peeling peels away flavor!

Last year I cooked *Agaricus bisporous* at the Natural History Museum Members' Open House in somewhat of the Hungarian manner (unpeeled), and they were a great hit—probably because the aroma of sautéing shallots totally invaded the ventilating system and brought about a general convergence on my station. The sought-after dish, "Mushrooms in Sour Cream," is a simple one.



At the same function I also served some spicy marinated mushrooms—again *Agaricus bisporous*, and I'm happy to oblige with the recipe. I call it "Marinated Mushrooms Internationale."

Delicate shudders flit through the frames of certain mycophiles when served *Agaricus bisporous*. They are suffering from advanced Inverted Philistinism, which constrains them to claim that only wild mushrooms are worth eating. In truth, that dumb store mushroom is really very good and also can be enjoyed raw. Not so with chanterelles. They are profoundly boring when eaten raw. So pretty are the slices, however, that they are often used in salads and as garnitures. If first marinated for a short time in an appropriate vinaigrette or dressing, they will lose nothing in aesthetic appeal and gain appreciably in flavor.

When fresh chanterelles are not available you may have recourse to canned or dried ones. Dried chanterelles are inclined to be tough and astringent, although when reconstituted in warm water for ten minutes they have a limited usage. When they are cut in rustic julienne strips and tossed into the juices of roasting meats they somehow lose their astringency, become tender, and release their flavor. Cooked thusly with the meat they are delicious and can also be used later as a soup or sauce ingredient.

Canned chanterelles from our own Pacific Northwest are now available in some specialty markets under the Madame Mushroom label. They are flavorful and tender and suitable for all dishes where a firm or chewy texture is not required. They are exceptional in a quiche. Marinated, creamed, in soups and sauces—superb.

And guess what! A Professor Moser of Innsbruck has come up with a chanterelle schnapps. Now that little goody should have a profound effect on certain fearful philistines!

Next issue: *Morel Cuisine and the Fearful Philistine*

William Breen describes himself as a world-weary fashion designer who became a writer-artist with a business in wild edible mushrooms. He is also interested in food and wine as they relate to cooking and eating wild mushrooms in an inspired manner.

CREAM OF CHANTERELLE SOUP

- 1 lb chanterelles, one-half of these cut into bite-size pieces and one-half sliced
- 8 T sweet butter
- 1 shallot
- 5 c chicken stock
- 1½ c cream
- dash each nutmeg and powdered coriander
- salt and pepper to taste
- 2 T flour
- ⅓ c dry Sauterne

Sauté each half pound of a pound of chanterelles using the method described in "Veal or Lamb Chops with Chanterelles and Cream" using four tablespoons of the butter and a separate pan for each half pound. Drain off *all* the liquid into a medium-size pot. Sauté the mushrooms only to the point where the caramelization occurs.

Purée the bite-size mushrooms and the shallot in a food processor or blender with the liquid and the cream. Return the mixture to the pot, stir in the chicken

stock, and add the half pound of chanterelle slices. Sprinkle in a dash of nutmeg, one of powdered coriander, and the salt and pepper.

Return the mixture to the pot, add the half pound of chanterelle slices, and simmer the soup for fifteen minutes over low heat. Make a *roux* by melting the other four tablespoons of butter and stirring in the flour. Use a medium-size heavy-bottomed saucepan and a wire whisk to mix the roux over low heat until it is golden brown and bubbly. Whisk in one cup of the soup gradually and then a second cup. Whisk all into the remaining soup, add the Sauterne, and continue heating until the soup is agreeably thickened.

This will serve six nicely and be fun to eat because of the combination of velvety texture and all those nice sliced chanterelles, which will release bursts of flavor when bitten into. Be sure to adjust salt and pepper. Garnish each serving with a thin lemon slice and sprig of watercress.

MUSHROOMS IN SOUR CREAM

- ¼ c unsalted butter
- 1 lb mushroom buttons or sliced whole mushrooms (*Agaricus bisporous*)
- ¼ c minced shallots
- ¼ c minced parsley
- 1 t lemon juice
- 2 T Madeira
- 1 c sour cream
- salt and pepper
- paprika

Melt the butter in a heavy skillet. Sauté the mushrooms and shallots for five minutes. Add the parsley and lemon juice; stir well. Add Madeira, sour cream, salt, and pepper. Stir and heat until the cream is hot but not to the boiling point. Serve with a light sprinkle of paprika after adjusting seasoning. Serves four.

MARINATED MUSHROOMS INTERNATIONALE

- 2 lbs button mushrooms or larger mushrooms with gills unexposed
- ½ c teriyaki sauce
- 1 t chili powder or powdered red pepper
- 3 T olive oil
- 2 t finely chopped fresh basil
- 2 t red wine vinegar
- ½ c dry red wine
- ½ ample t cornstarch
- salt & black pepper

Bring all ingredients to a rolling boil in a saucepan. Remove from heat, cool, adjust salt, and marinate for four to six hours. If your mushrooms are a bit large, halve them before marinating. Spear on cocktail picks before serving either hot or cold. With hors d'oeuvres one never knows, so let's say this serves two to twenty.



This unfinished plaid wearing blanket is still attached to the upright loom on which it was woven. The weaver (who, among the Hopi, is traditionally a man) suspends the loom from a beam inside the pueblo and sits on the floor in front of it. This type of brown and white plaid shoulder blanket is woven and worn only by the Hopi, but its use largely died out by the end of the nineteenth century. This blanket was woven by Jack Pongyayesva in spring 1983 and was awarded a blue ribbon at the Museum of Northern Arizona's Fifty-Third Annual Hopi Craftsman Exhibition in the same year. A master weaver, Mr. Pongyayesva is in his eighties and is one of the last people to produce these textiles.



The Hopi kilt has long been one of the primary pieces of clothing worn by men in traditional Pueblo ceremonies, and they are still worn in dances today. The main body of the kilt is of white cotton; the ends bear a standardized embroidered design of inverted stepped triangles (representing clouds) over short red and white vertical bars (representing rain). Woven and used in the mid-twentieth century, this kilt is an excellent example of the extremely conservative and unchanging nature of Pueblo ceremonial textiles.

This scene showing Zuni Rain Dancers was photographed by A. C. Vroman in 1899. The men are in the midst of the ceremony and are wearing kilts and sashes as integral parts of their costumes. The mid-twentieth-century example of a kilt seen above is nearly identical to the turn-of-the-century kilts in this photograph.



Traditional Pueblo Clothing

Some Recent Acquisitions

Textiles Photographed
by Dick Meier
and John De Leon

Textile weaving in the American Southwest has great antiquity. More than two thousand years ago the Basket Maker peoples were fashioning wild plant and animal fibers into utilitarian garments by a variety of non-loom processes collectively known as *finger weaving*. Over the ensuing centuries the knowledge of cotton cultivation and loom weaving spread northward from the advanced civilizations of South America. By A.D. 1100 Puebloan peoples were skilled loom weavers actively producing a wide array of cotton garments. Later, with the arrival of the Spaniards, the Pueblo people began to raise sheep, and wool was added to the weaver's inventory of materials.

Pueblo ceremonial clothing has always served a specific purpose of adorning and transforming the wearer according to the nature of the particular ceremony. Among the Pueblo peoples men did most of the weaving, and over the centuries they maintained extremely conservative attitudes toward ceremonial clothing. Although weavers often eagerly adopted yarns and dyes introduced by the white man, the basic form of the garments they wove and their associated decorative motifs have re-



Large white shawls with multicolored top and bottom design panels are worn by both men and women in a number of Pueblo ceremonies. While the overall appearance of the shawl and its associated decorations have not changed substantially over the years, this textile's format has not been as unvarying as that of the sash (right). The border design can be a simple geometric pattern of squares and diamonds, as seen in this textile, or it can also incorporate flower and animal shapes and other pictorial elements.



Broad white wool sashes bearing a standardized end design were worn by male dancers over their white kilts. Woven as two separate pieces and sewn together, the sash's multicolor design is applied by an unusual technique known as *Hopi brocade*. Although the symbolic meaning of the design motifs has been lost—explanations range from a stylized kachina face to plant parts—the elements remain unchanged. Five horizontal bands with zigzags, bars, and diamonds in a very specific arrangement finished off with a long, flowing fringe are standard and have persisted over many years.



Before the arrival of the Spanish, who brought sheep, new trade goods, and the knowledge of knitting and crocheting, many Southwestern textiles were constructed by simple finger weaving. With the new techniques, warm and decorative leggings like those seen above could be made quickly.

mained essentially unchanged.

The number of weavers actively producing ceremonial garments has decreased over the last few decades. Governmental agencies, anthropologists, and museums have made attempts to revitalize this disappearing industry, with mixed results. Today most of the weaving activity continues to be, as it has so often in the past, among the extremely conservative Hopi.

For the past four years the Anthropology Section of the Natural History Museum has been actively expanding its collection of traditional Pueblo clothing; the photographs seen here show a few of our recent acquisitions. These very special textiles are on display in a recently installed exhibit near the south entrance of the museum's main floor until summer 1986. Augmenting the textiles are photographs from the museum's historic records collections taken around 1900 and attributed to Pasadena photographer A. C. Vroman; the photographs depict the wearing of these colorful garments in several important Pueblo ceremonies.

Nancy J. Blomberg
Assistant Curator
Anthropology Section

Two different types of white shawls are being worn by the men in this Vroman photograph. Taken in 1902, it shows several participants in the Flute Ceremony at the Hopi village of Mishongnovi in Arizona. Two of the shawls are similar to our textile seen above left.



MUSEUM ETHNOGRAPHIC PIECES TO TRAVEL TO POLAND. Between 1914 and 1918, Polish anthropologist Bronislaw Kaspar Malinowski conducted three field trips to New Guinea that culminated in the publication of his classic study *Argonauts of the Western Pacific*. To honor him and his work, and to mark the centennial of his birth in 1894, an exhibition was organized by the Lowie Museum of Anthropology in Berkeley. It will travel to several U.S. museums with which Malinowski was affiliated, as well as a museum in Krakow, Poland, his homeland.

Four pieces from the Natural History Museum collections will be a part of this exhibition. They are two *mwali* armshell ornaments, a red shell disk necklace (*soulava, bagi*), and a *doga*, or circular boar tusk necklace, all associated with the Kula ceremony of the Trobriand Islands and other islands in the eastern New Guinea archipelago.

Kula is a system of social and economic reciprocity. This system of trade, or the Kula Ring, is formalized through ritualized trading with traditional trading partners. White armshell ornaments, made from the shell *Conus millepunctatus*, travel in a clockwise direction through the archipelago and are exchanged for red spondylus shell disk necklaces that are exchanged in the opposite direction. The boar tusk necklaces accompany the white armshell ornaments. Exchanged with the armshells and necklaces are surplus foodstuffs and other articles necessary for social and economic survival in this part of the world. Malinowski's study of this system of exchange changed ideas about anthropological field work and cultural theory.

The exhibition will travel from the Lowie to the Arizona State Museum (through January 31, 1986), the Yale Peabody Museum (April 1 to July 31, 1986), and to Krakow, Poland (October 1, 1986, to March 31, 1987).

UCLA INVERTEBRATE FOSSIL COLLECTION MOVES TO MUSEUM. UCLA's large collection of inverte-

brate fossils, which contains more than 400 holotypes (specimens on which species identifications are based) and which is rated one of the ten best in North America, has moved to the Natural History Museum. This addition to the specimens already in the museum's possession creates a combined collection that is unique in excellence in the southwestern United States. Transferring from UCLA to the museum with the collection is Louella Saul, the new Collections Manager for the Invertebrate Paleontology Section.

BENITOITE—THE NEW STATE GEMSTONE. One of the world's rarest and most beautiful gems has just become California's state gemstone, in a bill signed into law by Governor Deukmejian on October 1, 1985. Benitoite, a spectacular sapphire-blue gem, is found in gem-quality crystals at only one site in the world, a small deposit in a remote area of the Diablo range in San Benito County, California. This deposit was discovered in early 1907 by prospector J. M. Couch of Coalinga, and assayers in Los Angeles at first declared the gem to be valueless volcanic glass. Professor G. D. Louderback of the University of California, Berkeley, identified it as a new mineral, and in late 1907 named it after both the San Benito River, which has its headwaters near the deposit, and the county itself. The

benitoite deposit has been nearly depleted, and the gems, which were never very common, have become exceedingly rare. On display in the museum's Hixon Gem Vault is a priceless necklace of fifty-two round-cut benitoites accented by seventy-five diamonds. Elsewhere displayed in the Hall of Gems and Minerals are samples of gold, the state mineral, and serpentine, the state rock.

CALIFORNIA FEDERATION OF MINERALOGICAL SOCIETIES FUNDS EXHIBIT. The California Federation of Mineralogical Societies has provided \$12,000 to the museum's Mineralogy Section for the construction of a new permanent exhibit within the Hall of Gems and Minerals to showcase the museum's exceptional collection of California minerals, including benitoite, the new state gemstone. This collection has been greatly expanded over the past five years and now ranks as the finest collection of California minerals and one of the finest regional mineral collections in the world. The exhibit is scheduled to open this spring.

THE BEN J. CHROMY MINERAL COLLECTION. The Mineralogy Section recently received the Ben J. Chromy Collection, which represents one of the most significant additions to the museum's mineral collection ever made. Mr. Chromy, a patent attorney and noted mineral collector, died in February 1985. He willed his collection to the museum. Over nearly half a century, Mr. Chromy put together a collection noteworthy for its more than 5,000 specimens of micro-minerals (minerals best appreciated under the microscope). The rest of his collection includes many rare mineral species and a number of fine display-quality specimens. The addition of his collection increases the size of the museum's mineral collection by nearly one-third and gives us one of the most significant collections of micro-minerals in the world. The museum also received Mr. Chromy's mineralogical library and instruments and a monetary bequest.



Susan Gipson

NEW MINERALOGY OFFICE COMPLEX. The Mineralogy Section recently moved into a new office and laboratory complex on the first floor of the museum, adjacent to the new Deutsch Gallery, Gemstones and Their Origins. The new facility houses a library/conference room, computer room, research laboratory, X-ray diffraction laboratory, and dark-room, as well as curatorial offices. It provides a base of operations much closer to the section's collection and exhibition areas.

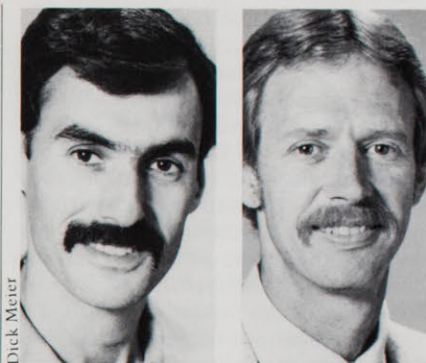


RARE LOS ANGELES-BUILT CAR ACQUIRED. A rare 1922 Leach automobile, manufactured in Los Angeles and probably the only surviving car of its kind, was recently purchased for the museum's automobile collection. James Zordich, Associate Curator of Business and Industrial History, made the successful bid at an auction in Reno, Nevada. Formerly part of Harrah's Automobile Collection, the Leach touring car, a production of the short-lived Leach-Biltwell Motor Company, makes a significant contribution to the museum's holdings of locally built automobiles. Other examples from the twenty-two firms that once manufactured cars in southern California are still being sought.

MUSEUM ASSOCIATION RECEIVES GRANT TO SURVEY ARCHIVES. The Associated Natural Science Institutions (TANSI), which is comprised of the Natural History Museum of

Los Angeles County, the California Academy of Sciences, San Francisco, the Field Museum of Natural History, Chicago, the Academy of Natural Sciences of Philadelphia, and the American Museum of Natural History, New York, have received a \$20,980 grant from the National Historical Publications and Records Commission to plan a cooperative approach to archival development and management in natural science institutions. William A. Deiss, Archivist of the Smithsonian Institution, will act as coordinating consultant and will visit each institution, assisting with the development of the final model guidelines. Katharine Donahue, Museum Librarian, will direct the project for the Natural History Museum and will host one of the two scheduled meetings of participants and consultants. The Project Director is Ms. Sylvia S. Baker, Vice President, Library Services, of the Academy of Natural Sciences of Philadelphia.

A NEW ASSOCIATE CURATOR OF INVERTEBRATE ZOOLOGY, DR. GORDON HENDLER. Dr. Gordon Hendler is the Natural History Museum's new Associate Curator of Invertebrate Zoology. His research activities are focused on echinoderms (starfish, sea urchins, and their relatives), with particular emphasis on a group known as brittle stars. Dr. Hendler has served as director of the Smithsonian Institution's Galeta Marine Laboratory in Panama and as a marine biologist at the Smithsonian Oceanographic Sorting Center in Washington, D.C. He has participated in oceanographic cruises in the Antarctic, north Atlantic, Indo-Pacific and the Caribbean, and he is now chiefly working with the brittle stars of tropical regions. Dr. Hendler recently completed a multiyear project involving dives to 2,600 feet in the research submersible *Johnson-Sea Link*. Collaborating with colleagues at the Smithsonian Institution and the Harbor Branch Foundation in Florida, he is currently preparing an illustrated atlas of the deep-water echinoderms of the Bahama Islands.



Dr. Gordon Hendler Dr. J. D. Stewart

DR. J. D. STEWART, ASSISTANT CURATOR OF VERTEBRATE PALEONTOLOGY. Dr. Joe D. (J. D.) Stewart is the museum's new Assistant Curator of Vertebrate Paleontology. Dr. Stewart's research interests include fossil and living fishes, Mesozoic birds, and Pleistocene faunas, all subjects about which he has written. His curatorial duties at the museum will include overseeing all the fossil fishes and the marine reptiles from the Mesozoic Era. Dr. Stewart is a native of Kansas and received his doctorate in Systematics and Ecology from the University of Kansas in 1984. His dissertation was written on the fishes found as fossils within giant clams in Cretaceous marine deposits in Kansas. His investigation of this group of fishes took him in 1980 and 1981 to the British Museum (Natural History) and various European museums. His first curatorial task at the Natural History Museum is to curate a large collection of Cretaceous fishes and reptiles obtained a decade ago from marine formations in Kansas.

CORRECTION. The photograph of the "Chief style" Navajo blanket that appeared in "Times of Trade" in the September/October 1985 issue of *Terra* is incorrectly oriented. The blanket should be shown with the stripes running parallel to the bottom of the page rather than to the side edge—the textile was both woven on the loom and worn on the body with the stripes on the horizontal.

BOOK REVIEWS

A FIELD GUIDE TO WESTERN REPTILES AND AMPHIBIANS (second edition, revised) by Robert C. Stebbins, Houghton Mifflin, 1985. 336 pp., 48 plates, cloth, \$17.95, paper, \$12.95.

When the first edition of this book, the sixteenth in the Peterson field guide series, appeared in 1966, it set new standards of scholarship and aesthetics for field guides. Due at least in some measure to the impact of this small volume, the past two decades have seen a phenomenal growth of interest in and research on reptiles and amphibians of the western United States, Mexico, and Canada. The author, Dr. Robert C. Stebbins, has now incorporated much of this new information on the systematics, distribution, and ecology of our western herpetofauna into a thoroughly revised edition of this modern classic.

The geographic scope of the field guide has been significantly expanded to encompass the Baja California Peninsula. A dozen magnificent new color plates have been added, all painted by Dr. Stebbins with incredible accuracy, detail, and beauty. These depict many of the species formerly illustrated in black and white, plus some that have been recently discovered or that are found only in Baja California. Included on the new plates are members of the genera *Batrachoseps* (slender salamanders), *Rana* (true frogs), and *Cnemidophorus* (whiptails) that have been discovered with the aid of biochemical techniques, and the author successfully portrays the subtle differences among these cryptic species.

Virtually every range map has been redrawn to reflect the growth in the knowledge of distribution that has resulted from field work and the increased accessibility of formerly remote areas of the West during the past few decades. Although the primary function of the guide remains identification, important new information on ecology has been added, including the notation of endangered or threatened species and information on reproductive biology.

The field guide now covers a total of 244 species—all salamanders, frogs, turtles, lizards, and snakes found in the western United States and Canada from the southeast corner of New Mexico north to the Arctic Circle, and on Mexico's Baja California Peninsula

(exclusive of the islands). There are 601 separate illustrations, including 48 plates (35 in color) and 200 range maps. In addition to the species accounts, the book includes sections covering field study, captive maintenance, identification keys, eggs and larvae, and a very useful glossary and list of references. The book is highly recommended for anyone—novice, serious amateur, or professional herpetologist—wishing to identify western reptiles and amphibians, to learn something of their habits, habitats, and distribution, or perhaps just to enjoy the exquisite renderings of these fascinating creatures.

Robert L. Bezy
Associate Curator
Section of Herpetology

THE GRIZZLY IN THE SOUTHWEST: DOCUMENTARY OF AN EXTINCTION by David E. Brown, University of Oklahoma Press, 1985. 274 pp., cloth, \$19.95.

David Brown's book is an excellent account of the eradication of the grizzly bear from the southwestern United States and northwestern Mexico. Grizzlies were widely considered to be ferocious cattle killers and were relentlessly hunted, but by the mid-twentieth century, before anyone realized or believed it could happen, they were gone.

The grizzly probably never had more than a tenuous hold on its environment in this area. The bears require an enormous amount of space that is well endowed with the necessary shrubs and animals for food. The Southwest is an arid area with patches of environment (the mountains and river valleys) suitable for bears; thus individuals were widely dispersed and populations were low.

I began reading this book with reservation because many popular accounts of nature are based on hearsay rather than on solid evidence. Once I got into the book I found the opposite to be true. Brown's book is well documented from scientific and technical literature as well as from the journals, newspaper articles, and verbatim accounts necessary to historical works. He carefully gathers the evidence and builds a solid case for his thesis that grizzly numbers were overestimated by the populace. Their threat to man was overestimated as well, leading to



a successful (unfortunately) campaign of grizzly extermination.

Brown begins his book by discussing the problems with the nomenclature of the grizzly bear. Most people did not or could not distinguish between the grizzly and the black bear, and multiple names were applied to the two species. The fact that both species vary in color and size didn't help. Brown succinctly describes the problem and finishes with a summary of what scientists presently consider to be the proper classification of bears (*Ursus arctos* is the grizzly bear, *U. americanus* is the black bear).

The author then details the history of European man's contact with the grizzly bear, starting from pre-Spanish colonial times, when the grizzlies were displaced from their riparian haunts, to the twentieth century, when they were finally extirpated from their mountain retreats. The federal government, which played a role in encouraging the hunting, trapping, and poisoning of bears, realized too late that the species was disappearing from the southwestern part of its range. Accompanying these chapters are maps outlining the known records of grizzly bears as well as estimated distributions in 1850 and 1918. The final section of the book presents "bear lore" from the Southwest, including stories about both the bears and their hunters, and it is most enjoyable reading. David Brown should be commended for producing a book that, while worthy of use by professionals for its scientific content, is easily read and understood by the layperson.

While I am on the subject of bears, I'd like to mention briefly the reprinting of two fine natural history books by Adolph Murie: *The Grizzlies of*

Mount McKinley and *The Wolves of Mount McKinley* (University of Washington Press, 1985 reprints. Both paper, \$9.95). Adolph Murie worked in Mount McKinley (now Denali) National Park between 1922 and 1970, gathering observations on large mammals. These two books were published originally by the National Park Service; the first in 1944 (wolves) and the second, posthumously, in 1981 (grizzlies).

Each book is an excellent summary of the natural history of its seminal species. In addition, Murie gives accounts of the life histories of various other mammals, including caribou, Dall's sheep, fox, and rodents. The only major complaint I have is that the scientific nomenclature in the 1944 volume is outdated. At the very least the publisher should have offered an index referencing the old scientific names with the names presently accepted, such that the novice mammalogist might cross-reference this work with more modern works. As they are, these volumes afford the amateur naturalist a wonderful opportunity to learn about these ever-fascinating but often misunderstood mammals.

Sarah B. George
Assistant Curator
Birds and Mammals Section

WHAT I SAW IN CALIFORNIA by Edwin Bryant, University of Nebraska Press, 1985. 455 pp., paper, \$9.95.

Edwin Bryant, an editor of the *Louisville Courier* during the early 1840s, was fascinated with tales of exploration of the West and, although in poor health, decided to see for himself something of this new land and perhaps write about it. *What I Saw in California*, first published in 1848, was drawn from his journal, and has been reprinted in its entirety by the University of Nebraska Press; an outstanding introduction by Thomas D. Clark places California and Bryant in a proper historical framework. Although the journal has been reprinted many times, it is still difficult to obtain, so this particular reprint serves a need.

The year of publication triggers our memories. Bryant published this work before the Gold Rush; in fact, it is probably the most important pre-Gold Rush examination of California.

And, because Bryant went to California overland, his narrative became a guide to many subsequent travelers.

Bryant was in California in 1846 and 1847 and was right in the middle of significant historical events. He became an officer in Fremont's campaign to absorb California into the Union and even served for a brief time as *alcalde* (mayor) of San Francisco. Following his military service, Bryant visited many parts of the state, including Sutter's Fort, the San Joaquin Valley, Monterey, San Luis Obispo, and the City of Angels.

Bryant's action-packed two years in California gave him a variety of incidents to relate, and posterity has profited by Bryant's ability to put the incidents into print. His lucid writing and accurate reporting, plus his role as an active participant in many events, led to *What I Saw in California*, one of the most significant books from the California past.

Donald Chaput
Curator
Military and Political History

OTHER BOOKS RECEIVED BY TERRA

The World of Science Series: *BIRDS* and *WARM-BLOODED ANIMALS* by Maurice Burton, Facts on File, 1985. Beautifully illustrated books for young readers. Both books include glossaries explaining unfamiliar terms. 64 pp. each, cloth, each \$9.95.

THE ENCYCLOPEDIA OF BIRDS edited by Dr. Christopher M. Perrins and Dr. Alex L.A. Middleton, Facts on File, 1985. Covers the behavior, biology, and evolution of birds. 480 pp., 335 full-color illustrations, cloth, \$35.

HOW ANIMALS SEE: OTHER VISIONS OF OUR WORLD by Sandra Sinclair, Facts on File, 1985. Explores the range of vision among animals and depicts how the world may appear to various animals from the chambered nautilus to hawks, monkeys, and dragonflies. 192 pp., 150 color illustrations, cloth, \$24.95.

WILDFOWL by Eric Hosking, text by Janet Kear, foreword by Konrad Lorenz, Facts on File, 1985. Eric Hosking, who was awarded an OBE by Queen Elizabeth in 1977 for his natural history photography and conservation work, shows readers the lives, habits, and behavior of ducks, geese,

swans, and other wildfowl. 154 pp., 120 full-color photographs, cloth, \$24.95.

PARROTS' WOOD by Erma J. Fisk, W. W. Norton, 1985. Reflections by an eighty year-old amateur ornithologist on a month spent studying birds on a plantation in Belize. 240 pp., cloth, \$15.95.

SONORAN DESERT SPRING by John Alcock, University of Chicago Press, 1985. A journal drawn from Arizona State University Professor Alcock's studies of the Arizona desert describing the attraction and fascination of a harsh and unfamiliar environment. 194 pp., color & b/w illustrations, cloth, \$19.95.

PEOPLES OF PREHISTORIC SOUTH DAKOTA by Larry J. Zimmerman, University of Nebraska Press, 1985. A description of the environment of the Great Plains and the tools and adaptations the early Indians made. The author, a professor of anthropology at the University of South Dakota, explains archaeological techniques and points out the varieties of interpretation that can result from their application. 143 pp., 75 black & white illustrations, cloth, \$16.50.

IN THE SHADOW OF THE TEMPLE by Meir Ben-Dov, Harper & Row, 1985. The story of one of the most important archaeological projects of the twentieth century—uncovering three thousand years of Jewish, Christian, and Moslem civilization in the area around Jerusalem's Mount Moriah, the Temple Mount. On one site, twelve historical epochs are revealed. 381 pp., many illustrations, cloth, \$24.95.

GHOST DANCE by David Humphreys Miller, University of Nebraska Press, 1985 (1959). The author interviewed Indians who participated in the ghost dance, a late nineteenth-century expression of faith in an Indian Messiah who would banish white people and restore the Indians to a terrestrial paradise. A reprint of a 1959 book. 318 pp., paper, \$8.95.

THE BACKGROUND OF ECOLOGY: CONCEPT AND THEORY by Robert P. McIntosh, Cambridge University Press, 1985. A critical review of the origins and development of ecology, emphasizing the traditions and theories shared by plant and animal ecology, limnology (the study of the ecology of fresh waters), and oceanography. 383 pp., cloth, \$39.50.



$\frac{7}{8}$ " diameter
\$4.95

Enamel Lapel Pin Commemorates New Exhibit...

This is the second in a series of limited edition pins that commemorate special exhibits at the Natural History Museum. This pin reproduces the logo design for the Mercedes-Benz Centennial Exhibition. It incorporates the laurel wreath from the original Benz logo, the original Mercedes three-pointed star logo, and a depiction of the first automobile built by Gottlieb Daimler, whose company merged with Benz in 1926.

These attractive pins will be available in the Museum Bookstore beginning January 15, 1986. If you would like to place an order by mail, use the handy order blank provided below.

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